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ENVIRONMENTAL IMPACT REPORT

BERKELEY
NEIGHBORHOOD
TRAFFIC
STUDY

*Environmental impact studies
Berkeley*

*Traffic Regulation
Control signals*

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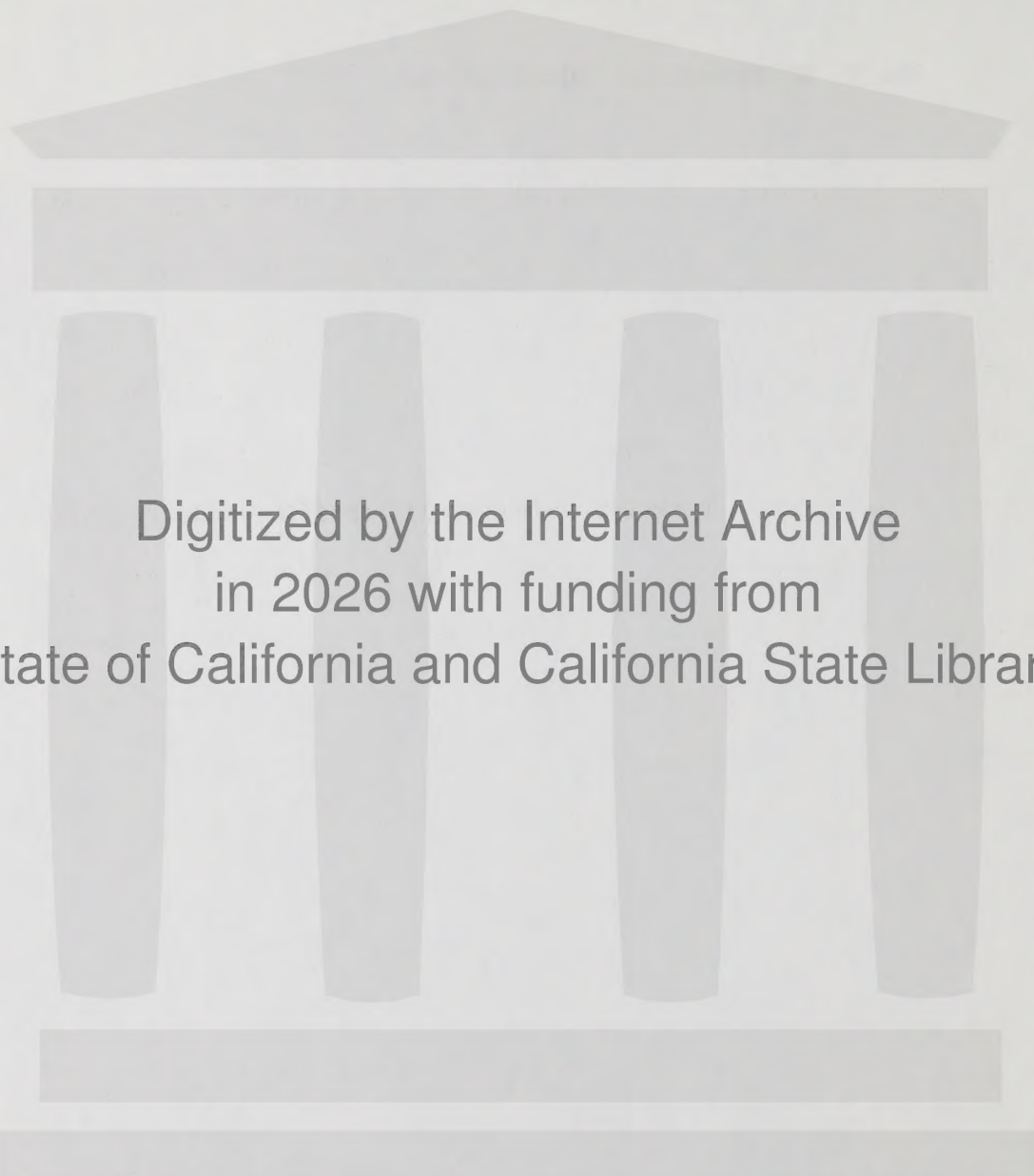
CITY OF BERKELEY
DEPARTMENT OF PUBLIC WORKS
OCTOBER 74

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DRAFT ENVIRONMENTAL IMPACT REPORT

Berkeley Neighborhood Traffic Study

Berkeley Public Works Department
October 1974



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ACKNOWLEDGMENT

This Environmental Impact Report was designed to bring together and analyze information prepared by many people for the City of Berkeley. The primary source of information was the reports of the Neighborhood Traffic Study prepared by DeLeuw, Cather and Company. Others providing significant assistance were Herman Sinemus, Berkeley Traffic Engineer and several staff members of the Bay Area Pollution Control District. John Gildea of the Berkeley Traffic Engineering Section was responsible for much of the original analysis presented in this report and served as the principal advisor on all aspects of the report. The Project Director is responsible for any errors in the presentation of factual material or analysis.

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COMPONENTS OF THE ENVIRONMENTAL IMPACT REPORT

This EIR is composed of a description of the project, a discussion of the environmental setting and an analysis of the impact of the project on the environment. Because the proposed traffic management program is quite detailed, the EIR is correspondingly detailed. However, in order to allow a reader to make a quick assessment of impacts, much of the technical information is contained in the Appendices.

The EIR therefore consists of the following:

- I. Project Description, Environmental Setting and Environmental Impact of the Proposed Berkeley Neighborhood Traffic Management Program (The main EIR Report which is presented in this volume.)
- II. Appendices:
 - A. Berkeley Facts;
 - B. Environmental Resources Inventory of the City of Berkeley;
 - C. Policy Analysis Report of the Berkeley Neighborhood Traffic Study;
 - D. Final Report of the Berkeley Neighborhood Traffic Study;
 - E. Circulation Element of the Berkeley Master Plan;
 - F. Technical Supplement

CHAPTER ONE: SUMMARY OF THE EIR

OVERVIEW OF THE PROJECT AND SUMMARY OF IMPACTS

OVERVIEW OF NEIGHBORHOOD TRAFFIC STUDY

The Berkeley Neighborhood Traffic Study was conducted by DeLeuw, Cather & Company, Consulting Engineers, Livingston & Blayney, City and Regional Planners, and McGuire and Simmons, Urban Planning Consultants for the City of Berkeley. The aim of the study was to develop means to reduce negative impacts of motor vehicle traffic in neighborhoods. The study developed traffic management plans designed to protect and enhance each neighborhood in the City.

The Study resulted in four reports. The "Final Report", published in July, 1974, documents, analyzes and evaluates alternative traffic management plans and makes specific proposals for City projects in neighborhood areas.

The "Issues Report," published in August 1973, is a reconnaissance of traffic and transportation problems in the City. It identifies neighborhood, citywide and regional transportation problems having local impact, based upon the compilation of opinions of individuals, groups, organizations and agencies in the City, as well as consultant analysis. The "Policy Report," published simultaneously with the "Final Project Report," documents findings relating to the impact of various transportation policy options which might be established to reduce vehicular traffic in Berkeley. A "Summary Report" abstracts the findings presented in the policy and final project reports.

The Neighborhood Traffic Study was characterized by four major areas of work activity: a citizen involvement program, development and analyses of transportation data, field observations and assessments, and development and evaluation of alternative neighborhood traffic management plans.

The development and evaluation of alternative neighborhood traffic management plans resulted in the formulation of recommendations of design and location of specific traffic control projects. These specific project recommendations are contained in the Final Report (Appendix D) and are the focus of this Environmental Impact Report.

DESCRIPTION OF ALTERNATIVE PROJECTS

The exact characteristics of the Project under consideration by this EIR has not yet been determined. Consequently this EIR has investigated the impacts of several alternative projects. The alternatives considered were:

1. The consultant's recommendation;
2. The consultant's recommendation plus reduction of the capacity of Tunnel Road;
3. The consultant's recommendation, but with the Fulton-Ellsworth corridor left in its present condition;
4. The consultant's recommendation with Tunnel Road capacity reduced but with the Fulton-Ellsworth corridor left in its present condition;
5. The consultant's recommendation but with all through traffic diverted from Fulton-Ellsworth;
6. The consultant's recommendation but with the Northgate, Flatlands and North LeConte neighborhoods left in their present conditions.

Alternative #1 has been presented in Chapter Two (Project Description). Descriptions of the other alternatives are presented in Chapter Three (Alternatives).

SUMMARY OF IMPACTS

Irreversible Changes to the Environment:

--No significant impacts from any alternative.

Hydrologic, Geologic and Soil Impacts:

--No significant impacts from any alternative.

Biotic Resources Impacts:

--No significant impacts from any alternative.

Air Quality Impacts:

--No significant impacts from any alternative.

Visual Impacts:

--All alternatives will introduce concrete and wood barricades as new elements of the visual environment. These barricades may be subject to vandalism and may act as attractors of activities that may promote littering.

Impact on Residential Areas:

Alternative #1: This alternative will result in a significant (10%) traffic shift to the Adeline-Shattuck-Derby residential area (Census Tract 35), and to the South Campus area;

Alternative #2: This alternative will result in a significant (14%) traffic shift to the McGee-California-Derby residential area (Census Tract 34), and to the South Campus area;

Alternative #3: No significant traffic shift;

Alternative #4: Same as for Alternative #1;

Alternative #5: Same as Alternative #2;

Alternative #6: No significant traffic shift.

Adverse Impact on the Residential Environment of Major Streets:

Alternative #1: The following residential streets will have a 30% or greater increase in traffic: Haste (Telegraph to Piedmont); Euclid (Cedar to Hearst); Dwight (Telegraph to Piedmont); Allston (Grove to San Pablo); Haste (Shattuck to Telegraph); Santa Fe; Cedar (Shattuck to Euclid); Dwight (Shattuck to Telegraph);

Alternative #2: All of Alternative #1 plus Grove (Ashby to Dwight), Claremont (South of Ashby) and College (Derby to Telegraph);

SUMMARY OF IMPACTS (CONTINUED)

Alternative #3: The following residential streets will have a 30% or greater increase in traffic: Euclid (Cedar to Hearst); Allston (Grove to San Pablo); Cedar (Shattuck to Euclid); Haste (Telegraph to Piedmont); Santa Fe;

Alternative #4: The following residential streets will have a 30% or greater increase in traffic: Euclid (Cedar to Hearst); Allston (Grove to San Pablo); Cedar (Shattuck to Euclid); Claremont (South of Ashby); College (Dwight to Derby); Santa Fe;

Alternative #5: The following residential streets will have a 30% or greater increase in traffic: all of Alternative #1 plus Claremont-Belrose-Derby-Warring-Piedmont (Ashby to Haste);

Alternative #6: The following residential street will have a 30% or greater increase in traffic: Santa Fe.

Beneficial Impacts on the Residential Environment of Major Streets:

Alternative #1: The following residential streets will have a 30% or more decrease in traffic: Milvia (Dwight to Ashby); Ellsworth (Ashby to Dwight); Milvia (Cedar to Rose); Derby (Telegraph to Warring); Rose (San Pablo to Grove); Virginia (Oxford to Euclid); Bancroft (Grove to San Pablo); LeConte, Russell (Telegraph to College);

Alternative #2: All of Alternative #1 plus Tunnel Road;

Alternative #3: All of Alternative #1 except Ellsworth (Ashby to Dwight);

Alternative #4: All of Alternative #3 plus Tunnel Road;

Alternative #5: All of Alternative #1 plus Fulton (Dwight to Ashby);

Alternative #6: The following residential streets will have a 30% or more decrease in traffic: Milvia (Dwight to Ashby); Milvia (Cedar to Rose); Derby (Telegraph to Warring); Rose (San Pablo to Grove); and Russell (Telegraph to College).

Adverse Noise Impacts:

Alternative #1: Noise from traffic will be increased significantly on Dwight (Shattuck to Telegraph);

Alternative #2: Same as Alternative #1;

Alternative #3: No significant adverse noise impacts;

Alternative #4: No significant adverse noise impacts;

Alternative #5: Same as Alternative #1;

Alternative #6: No significant adverse noise impacts.

SUMMARY OF IMPACTS (CONTINUED)

Beneficial Noise Impacts:

Alternative #1: Noise from traffic will be reduced significantly on the following streets: Ellsworth (Ashby to Dwight); LeConte; Milvia (Dwight to Ashby); Milvia (Cedar to Rose); Derby (Telegraph to Warring); Rose (San Pablo to Warring); Virginia (Oxford to Euclid); Bancroft (Grove to San Pablo); Russell (Telegraph to College);

Alternative #2: Same as Alternative #1;

Alternative #3: Same as Alternative #1 except that Ellsworth Street will remain unchanged;

Alternative #4: Same as Alternative #3;

Alternative #5: Same as Alternative #1 except that noise levels on Fulton will also be reduced;

Alternative #6: Noise from traffic will be reduced significantly on the following streets: Milvia (Dwight to Ashby); Milvia (Cedar to Rose); Derby (Telegraph to Warring); Rose (San Pablo to Warring); Russell (Telegraph to College).

Impacts on Neighborhood Accessibility:

Alternative #1: The following neighborhood areas* will have significant reduced accessibility: Uplands, South LeConte, Bateman, Northgate, Flatlands-SUDS, Ashby-Clairemont-College Triangle, North LeConte, Emerson, Cow Hollow-North Berkeley, Willard Park;

Alternative #2: Same as Alternative #1;

Alternative #3: Same as Alternative #1 except the North LeConte area will not be affected;

Alternative #4: Same as Alternative #3;

Alternative #5: Same as Alternative #1;

Alternative #6: Same as Alternative #1 except that the following neighborhoods will not be affected: Northgate, Flatlands and North LeConte;

Traffic Congestion Impacts:

Alternative #1: The following roadways will become significantly more congested: Ashby westbound at College, Euclid southbound at Hearst, Ashby eastbound at Claremont, Claremont southbound at,

*See Chapter Two (Project Description) for location of these neighborhood areas.

SUMMARY OF IMPACTS (CONTINUED)

Ashby, College north and southbound at Ashby, Ashby eastbound at Telegraph, Telegraph southbound at Ashby;

Alternative #2: The following roadways will become significantly more congested: Euclid southbound at Hearst, Claremont north and southbound at Ashby, College north and southbound at Ashby; Telegraph southbound at Ashby, Grove southbound at Ashby;

Alternative #3: The following roadways will become significantly more congested: Ashby westbound at College, Euclid southbound at Hearst, Ashby eastbound at Claremont, College north and southbound at Ashby;

Alternative #4: The following roadways will become significantly more congested: Euclid southbound at Hearst, Claremont northbound at Ashby, College north and southbound at Ashby;

Alternative #5: The following roadways will become significantly more congested: Euclid southbound at Hearst, Claremont southbound at Ashby, Claremont southbound at Ashby, College north and southbound at Ashby, and Telegraph southbound at Ashby;

Alternative #6: The following roadways will become significantly more congested: Ashby westbound at College, Ashby eastbound at Claremont, Ashby eastbound at College, College north and southbound at Ashby.

Adverse Impacts on Commercial Areas:

Alternative #1: Adversely impacted commercial areas: Euclid Avenue stores; Elmwood Shopping District, Sather Gate Shops;

Alternative #2: Same as Alternative #1;

Alternative #3: Adversely impacted commercial area: Euclid Avenue Stores;

Alternative #4: Adversely impacted commercial areas: Euclid Avenue Stores and Elmwood Shopping District;

Alternative #5: Same as Alternative #1;

Alternative #6: No commercial areas will be significantly impacted.

Impacts on Service and Emergency Vehicles:

--All alternatives will cause access problems to emergency and service vehicles.

CHAPTER TWO: PROJECT DESCRIPTION

GENERAL RECOMMENDATIONS OF NEIGHBORHOOD TRAFFIC STUDY

The Neighborhood Traffic Study recommends a major program to manage traffic in Berkeley. Below is an itemization of the proposals, with the City Traffic Engineer's estimate of the costs:

<u>QUANTITY</u>	<u>ITEM</u>	<u>COST EACH</u>	<u>TOTAL COST</u>
6	Signals	\$ 35,000	\$ 210,000
74	Diverter and semi-diverter	500-2,250	128,250
3	Signal Modifications	5,000-15,000	25,000
39,900 ft.	Striping	.27 to 1.00/foot	13,830
4,450 ft.	Concrete and Asphalt Islands	2.50/foot	11,130
179	STOP Signs	30-50	6,090
9,400	Paint and Bar Islands	0.43/foot	4,040
10	Chokers	400	4,000
83	Pavement Markings	10-40	2,900
66	Signs (other than STOP)	30	1,980
Subtotal			\$ 407,220
Contingencies @ 10%			40,780
TOTAL			\$ 448,000

Not all of these proposals are the subject of this E.I.R. Most are exempt from State E.I.R. preparation requirements.

Specifically, the operation, repair, maintenance or minor alteration of existing highways and streets are exempt. Thus, this E.I.R. does not analyze the following traffic management recommendations:

Safety related elements, signing, striping, parking removals, pavement markings, minor channelizations, traffic signals, and similar measures when performed to improve traffic flow or increase safety as opposed to diverting traffic or intentionally congesting traffic.

GENERAL RECOMMENDATIONS OF NEIGHBORHOOD TRAFFIC STUDY (CONTINUED)

The following traffic management projects are the subject of this E.I.R.:

1. Installation of traffic diverters, semi-diverters, chokers, traffic circles, signing, signalization or other measures designed to divert traffic or intentionally congest or impede traffic flow.
2. Operational improvements on designated circulation system streets designed to absorb the impact of neighborhood diversion plans.

The main result of the Projects proposed by the Neighborhood Traffic Study is to divert traffic out of residential areas onto arterial streets. The primary methods are listed above and described below:

DIVERTER

A diverter is a form of traffic barrier most typically employed to impose a curvilinear street pattern on a rectangular street grid. Diverters are typically deployed diagonally across an intersection to prevent straight through and either a right or left-turning movement. The remaining turning movement becomes the continuous flow movement.

Numerous designs for diverters are conceivable. These range from fully landscaped, permanent street reconstruction to extremely simple installations comprised of raised traffic bars. Beyond basic location, the key issues of design are aesthetics, whether the diverter would be passable for service and emergency vehicles, and if so, whether other vehicles would be prevented from using the emergency vehicle access or merely discouraged from using it.

SEMI-DIVERTER

A semi-diverter is a physical barrier which allows travel in one direction while prohibiting travel in the other direction. The barrier is most often placed close to an intersection to prohibit vehicles entering the street. Semi-diverters stop one direction of flow while allowing two-way travel on either side. They are particularly effective to control highly directional traffic although the relief provided by prohibiting even one direction of a balanced flow can be significant. Semi-diverters do not interrupt emergency services since those vehicles can turn on a siren and drive in the wrong direction if they must reach their destination. School buses can drive in the right direction but are not allowed to drive on the wrong side of the street to bypass a semi-diverter.

*The City proposes to construct concrete and wood diverters.

CHOKERS

Choker is the name given to the practice of physically narrowing the street. The sidewalk area at an intersection is increased while the width of intersection approaches is reduced. Chokers can be installed at all approaches or can narrow only one approach or direction of travel to produce the desired effect. Temporary chokers have been installed in Berkeley using traffic bars. A permanent design must consider revisions in curblines, sidewalks and drainage facilities as well as provisions for bicycle travel and landscaping.

TRAFFIC CIRCLES

This special treatment places a small traffic circle in the middle of an existing intersection to provide a device less restrictive than a diverter that would reduce the volume and speed of the traffic in the area. One such device has been placed at the intersection of Regent and Woolsey Streets near Alta Bates Hospital.

A POSSIBLE PROGRAM

In addition to specific proposals for traffic management in neighborhood areas, the Neighborhood Traffic Study in the Policy Analysis Report presented "a possible program." This program is not detailed enough to be considered a "project" or "projects" for E.I.R. purposes and a detailed analysis of the environmental impact of such a program is not included in this E.I.R. However, the ideas of the possible program are important to consider in making an impact analysis of the specific neighborhood traffic management proposals and they are therefore presented below.

The report states that if the City determines as a policy objective the achievement of meaningful reductions of automobile traffic on Berkeley streets through a coordinated program of auto travel disincentives and alternative transportation services, the following programs would appear to have most promise:

1. Surface transit should be improved to provide feeder/distributor services for the three Berkeley BART stations and the Rockridge station in Oakland and to increase frequency on other local routes.

A POSSIBLE PROGRAM (CONTINUED)

2. The Berkeley Local Transit Study should explore the potential for fare-free or low fare transit and experimental programs of this nature should be pursued. As a less radical step, merchants could be encouraged to provide transit tokens to customers rather than providing free customer parking.
3. Local programs to encourage car pooling should be organized to supplement regional efforts (provision of exclusive car pool lanes on freeways, the area-wide RIDES program).
4. Initial implementation of parking controls should start with a neighborhood control measure, requiring a sticker for curb parking on any street which is not controlled by turnover regulations or meters. To skirt legal problems associated with making stickers available to residents only, annual stickers would be available to anyone wishing to purchase them (resident or non-resident) for a fee of say \$25. Funds raised would be used to subsidize transit services. Parking for occasional visitors could be accommodated by marking a limited number of spaces on each block exempt from sticker regulations.
5. Once neighborhoods have been protected against parking over-spill, surcharges on paid off-street parking and employer-provided parking could be implemented. Funds generated by parking stickers and surcharges in excess of administrative costs could be used to subsidize improved transit.
6. The City should work with the University of California for a change in University parking policies -- elimination of surface parking on campus properties and increase of rates to cover the cost of capitalization and operation of University parking structures through fees paid for parking in the structures themselves.

SPECIFIC NEIGHBORHOOD PROPOSALS

The Neighborhood Traffic Study made specific proposals for traffic management in all Berkeley Neighborhoods. The detailed proposals were broken down into 15 neighborhood areas. These areas were:

Hill Neighborhoods	SUDS - Flatlands - South Campus
Hill (west)	Southwest Berkeley
Hill (north)	LeConte
Hill (south)	Willard Park
West Berkeley	Bateman
Westbrae - University Gardens	Southeast Berkeley Neighborhoods
North Berkeley - Cow Hollow	Emerson
Hillside - Northgate	Ashby - Claremont - College Triangle
	The Uplands

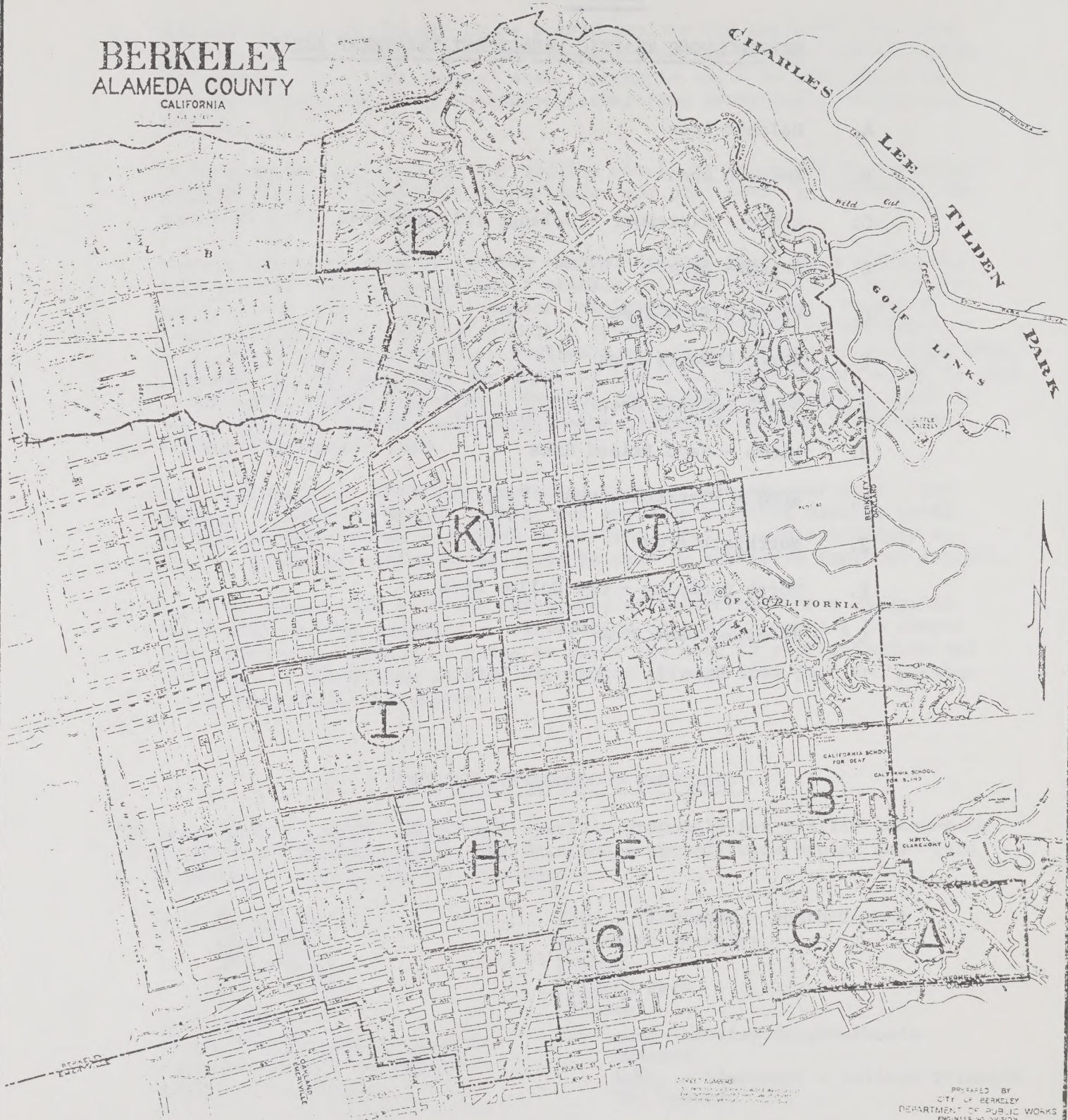
The major traffic diversion proposals of the study, however, are not found in exactly these areas, and in some neighborhoods noted above there are virtually no impacts. Therefore the E.I.R. has delineated its own neighborhood impact areas which are listed in Table 2-1 and depicted on Map 2-1.

TABLE 2-1

NEIGHBORHOOD TRAFFIC MANAGEMENT TREATMENT AREAS

- A. Uplands Area
- B. Emerson Area
- C. Ashby - Claremont - College Triangle Area
- D. Bateman Area
- E. Willard Park Area
- F. North LeConte Area
- G. South LeConte Area
- H. McGee - Savo Island Area
- I. SUDS - Flatlands Area
- J. Northgate Area
- K. North Berkeley - Cow Hollow Area
- L. Thousand Oaks Area

BERKELEY
ALAMEDA COUNTY
CALIFORNIA



NEIGHBORHOOD
TREATMENT AREA

ENVIRONMENTAL IMPACT REPORT
FOR
BERKELEY NEIGHBORHOOD TRAFFIC
STUDY

RECOMMENDED UPLANDS AREA TREATMENT

The Uplands Area is a neighborhood of single-family homes. The major traffic is concentrated on Tunnel Road (33,000 Average Daily Traffic) and Claremont Avenue (9,500 Average Daily Traffic). The main neighborhood street, The Uplands (ADT 3,100) serves as an access to the neighborhood and as a short cut for traffic on Tunnel Road or Claremont.

STUDY PROPOSALS

In order to protect the bulk of the residential areas from through traffic and concentrate it on Claremont and Tunnel, three diverters or semi-diverters are proposed by the study. (See Map 2-2 and Table 2-2 in this report and Uplands Area Alternative Proposals in the Final Report of the Neighborhood Traffic Study.)

TABLE 2 - 2

PROPOSALS FOR UPLANDS AREA

Map Key #1:

Domingo and Tunnel

Install a full closure of Domingo south of the service station driveways and north of the apartments. The closure would be accessible to fire and other emergency vehicles as well as to school buses.

Map Key #2:

The Uplands and Tunnel

Install a full closure to restrict traffic on this portion of The Uplands to local needs. The closure would be traversible by emergency vehicles.

Map Key #3:

Roanoke and the City Limits

Install a semi-diverter which will prevent northbound vehicles on Roanoke from entering Berkeley. Southbound vehicles from Berkeley to Oakland will still be permitted.

ENVIRONMENTAL IMPACT REPORT

FOR

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ALTERNATIVE UPLANDS TREATMENT *

The study lists the following alternative proposals:

Alternative 1: No Traffic Diverters:

This Alternative consists of additional signing and other safety and traffic control treatments which would not have any predictable traffic diversion impact.

Alternative 2: Center Diverters at Hazel Road and Oak Vale Avenue:

As an alternative to closing Domingo Avenue, this proposal would discourage the short-cut use of these two streets and Domingo.

Alternative 3: The Recommended Alternative ("Uplands Area Treatment")

Alternative 4: Modification of Alternative 3:

This is the same as Alternative 3 except it proposes semi-diverters at Uplands/Tunnel and Uplands/El Camino Real instead of full closure at Uplands/Tunnel for same purpose. Proposes full closure of Roanoke at the City Limits.

* See Final Report for full descriptions.

RECOMMENDED EMERSON AREA TREATMENT

The Emerson Area is a neighborhood of single-family homes. The neighborhood is crisscrossed, bounded and transected by busy streets. Claremont Boulevard-Belrose Avenue (14,000 Average Daily Traffic) Derby Street (17,000 ADT), Warring Street (18,000 ADT), and Dwight Way (7,000 ADT) form a major traffic funnel coming from Tunnel Road. In addition, the neighborhood is bounded by College Avenue (11,500 ADT) and Ashby Avenue (23,000 ADT). Tanglewood Road (ADT 3,000) serves as a collector street. In addition, Piedmont, Derby, Parker and Russell suffer from intrusions of non-neighborhood traffic. The College Avenue Commercial Area also draws traffic and parking demand to the neighborhood.

STUDY PROPOSALS

In order to protect as much of the residential area as possible from the intrusion of non-resident traffic and concentrate it on Claremont Boulevard - Belrose Avenue - Derby Street - Warring, or Ashby Avenue, or College Avenue, seven diverters or semi-diverters are proposed by the Study (See Map 2-3 and Table 2-3 in this report. and Emerson Area Alternative Proposals in the Final Report of the Neighborhood Traffic Study.)

TABLE 2-3

PROPOSALS FOR EMERSON AREA

Map Key #1 Etna and Dwight:

Install a full closure on Etna Street south of Dwight Way to block traffic entering and leaving Etna at Dwight. The closure is intended to limit the circulation of traffic searching for parking.

Map Key #2 Parker and Piedmont:

Install a diverter with northeast to southwest orientation. The diverter is intended to protect Parker Street from being a through route between College Avenue and Warring Street once other neighborhood traffic control devices are placed. Piedmont is a designated fire route and the diverter at Parker should allow access to emergency vehicles.

TABLE 2-3

Map Key #3 Derby and Piedmont:

Install a diverter with a northeast to southwest orientation. By discouraging through traffic, this diverter will change Derby Street between College and Warring from a street serving many through trips (3500 ADT), to one which serves more local needs. The diverter will be designed to allow emergency vehicle access, so as not to interrupt the designated fire route on Piedmont Avenue.

Map Key #4 Tanglewood, Garber and Claremont Avenue:

Install a full closure to prevent traffic from entering from or exiting to Claremont Avenue. This will prohibit the short-cut movement using Tanglewood Road from Claremont to Derby. The optimum point of closure is the intersection with Claremont Avenue. However, that point is outside of the Berkeley City Limit. Therefore, if closure is to be undertaken at the optimum point, the City of Oakland must be contacted and arrangements made for Berkeley to implement and maintain the closure.

The alternative to closure at the optimum point in Oakland is to close Garber and Tanglewood at their intersection with Belrose. Claremont Avenue then becomes the single point of access for this portion of the neighborhood.

Map Key #5 Avalon and Claremont:

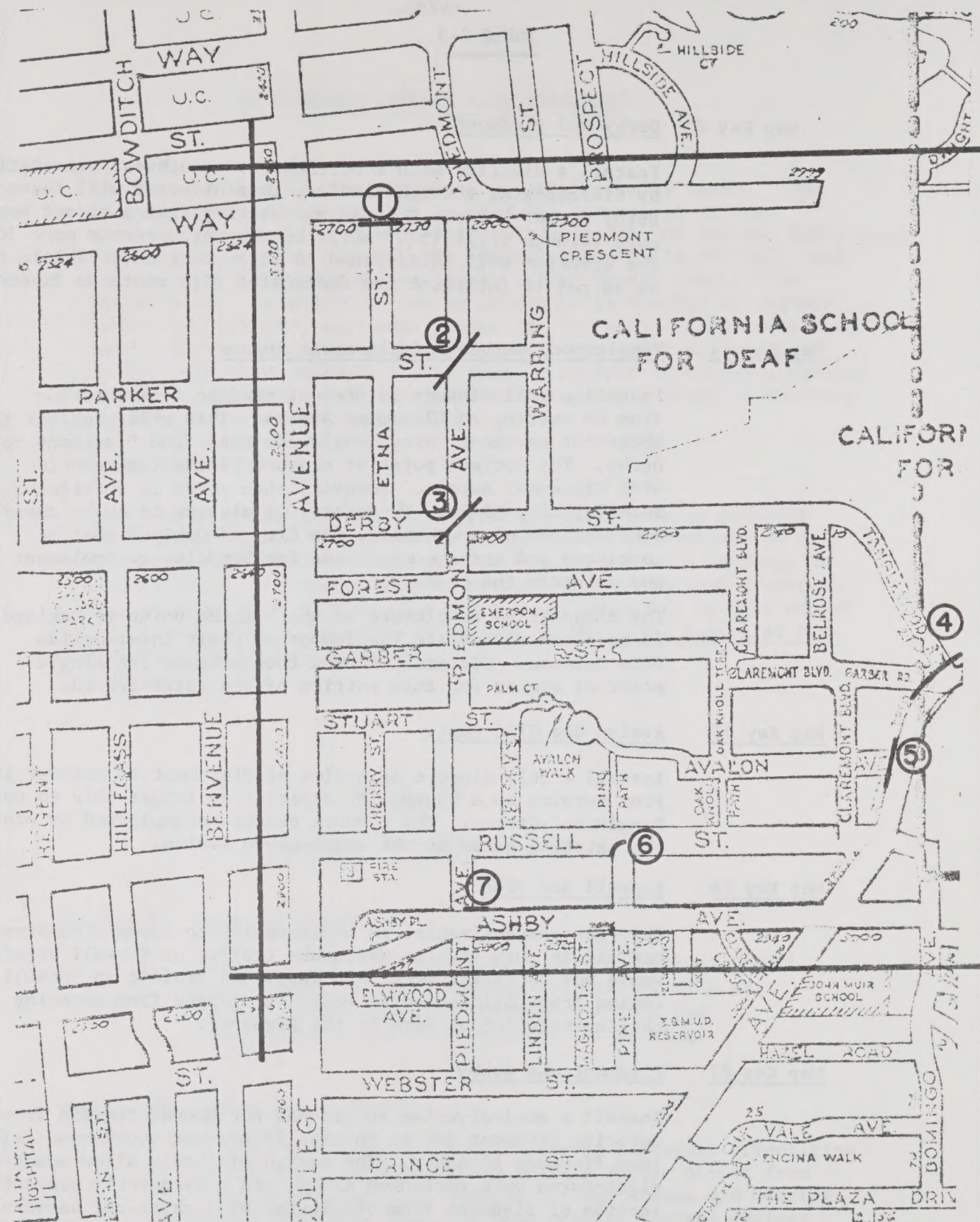
Install a full closure of Avalon at Claremont to prevent it from serving as a bypass for vehicles no longer able to use Tanglewood-Garber. The closure can be accomplished by closing the existing gates at the entrance to Avalon.

Map Key #6 Russell and Pine:

Diverter channelization to be installed to force Pine Street traffic to turn right. Westbound traffic on Russell Street would not be interrupted, but eastbound traffic on Russell coming from College Avenue would be stopped from entering the intersection at Pine by the Diverter.

Map Key #7 Piedmont and Ashby:

Install a semi-diverter to prevent northbound traffic from entering Piedmont and to physically prevent southbound left-turns from Piedmont to Ashby. The design will only allow southbound right-turns onto westbound Ashby, and consequently prevent this section of Piedmont from continuing as a short-cut between Ashby and College Avenue. This semi-diverter will still allow fire trucks from the Russell Street station to utilize Piedmont Avenue as an egress route and other emergency vehicles will be able to enter the neighborhood from Ashby Avenue by going the "wrong way" around the semi-diverter.



**PROPOSED TREATMENT
FOR EMERSON AREA**

— Divorter, Semi-Divorter
or Closure

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ALTERNATIVE EMERSON TREATMENT *

The Study lists the following alternative proposals:

Alternative 1: Modification of Alternative 2:

This is the same as Alternative 2 except it proposes full closure of Russell Street at Piedmont Avenue instead of the Diverter channelization proposed for Russell Street at Pine. Proposes full closure on Kelsey Street at Stuart Street to prevent both streets from becoming the through route to avoid the Russell Street closure.

Alternative 2: The Recommended Alternative

Alternative 3: Modification of Alternative 2:

This is the same as Alternative 2 except with the following addition:

Install a semi-diverter on either side of the Fire Station on Russell Street between College Avenue and Cherry Street. The design will permit fire truck access in both directions and will prevent shopping traffic from using Russell Street while looking for parking or circulating around the block.

Alternative 4: Modification of Alternative 2:

This is the same as Alternate 3 except this would provide for full closure of Kelsey Street at Stuart and slightly different treatment of the Russell Street traffic problem.

* See Final Report for full descriptions.

RECOMMENDED ASHBY - CLAREMONT - COLLEGE TRIANGLE AREA TREATMENT

This area is a neighborhood of primarily single-family homes. Traffic is concentrated on Ashby Avenue (23,000 Average Daily Traffic) Claremont Avenue (9,500 ADT) and College Avenue (11,500 ADT). Piedmont Avenue, Webster Street, Prince Street, Alcatraz Avenue and Woolsey Street have had a history of traffic intrusion from non-neighborhood traffic.

STUDY PROPOSALS

In order to protect the neighborhood areas from through traffic and concentrate it on Ashby, Claremont and College Avenues, one road closure, one semi-diverter is recommended by the Study (See Map 2-4 and Table 2-4 in this report and Ashby - Claremont - College Triangle area. Alternative Proposals in the Final Report of the Neighborhood Traffic Study.

TABLE 2-4

PROPOSALS FOR ASHBY - CLAREMONT - COLLEGE TRIANGLE AREA

Map Key #1: Webster and College:

Install a semi-diverter east of the Post Office Driveway on Webster Street to prevent traffic from continuing eastward. Westbound traffic will be permitted. This would prevent use of Webster Street as an eastbound through route between College and Claremont, use of Webster - Piedmont to avoid the College - Ashby intersection, or for circulation around the Elmwood Commercial District. (This device has been installed as part of the early action program.)

Map Key #2: Webster and Claremont:

Install a full closure of Webster Street west of Claremont. The closure will be designed to allow passage of fire trucks, emergency vehicles and school buses. (This closure has been installed as part of the Neighborhood Traffic Study early action program)

ALTERNATIVE TRIANGLE TREATMENT *

The Study lists the following alternate proposals:

Alternative 1: The Recommended Alternative

Alternative 2: Modification of Alternative 1:

This alternative is identical to Alternative 1 except that semi-diverters will be placed on Prince, Woolsey and Alcatraz to prevent eastbound vehicles from entering these streets from College Avenue. Westbound traffic will still be allowed access to College Avenue.

Alternative 3: Modification of Alternative 2:

This alternative is identical to Alternative 2 except that the semi-diverter on Woolsey Street at College Avenue is replaced by a full closure of Woolsey Street between Lewiston Avenue and Eton Avenue. This will effectively block Woolsey Street while allowing two-way access at College Avenue.

* See Final Report for full descriptions.

RECOMMENDED BATEMAN AREA TREATMENT

The Bateman neighborhood is located in southeast Berkeley bounded on three sides by major arterials -- College Avenue (13,000 Average Daily Traffic), Ashby Avenue (20,000 ADT) and Telegraph Avenue (20,000 ADT) -- and on the fourth side by the Oakland-Berkeley city limit. The neighborhood, which contains the Alta Bates Medical Complex, is comprised of mixed single and multiple family dwelling units, most over 40 years old, with similar development in the contiguous areas of north Oakland. Woolsey Street, a designated collector, penetrates the neighborhood as does Regent Street, which currently functions as a collector in concert with Colby Street in Oakland. Other factors affecting traffic and transportation in the area are the Elmwood Shopping Center, along College Avenue near Ashby Avenue, the commercial area on College near Alcatraz Avenue, and office and strip commercial development along Telegraph Avenue.

STUDY PROPOSALS

Four street closures and two diverters are recommended in order to achieve the following objectives:

- A. Separation of traffic associated with the Alta Bates medical complex from the residential areas of the neighborhood while still maintaining good access to the complex.
- B. Protection of the neighborhood from through traffic intrusions which result from avoidance of the Ashby and College corridors and the Ashby-College and Ashby-Telegraph intersection.
- C. Protection of the neighborhood from traffic circulating about the Elmwood shopping district.

(See Map 2-5 and Table 2-5 in this report and the Bateman Area Alternative Proposals in the Final Report of the Neighborhood Traffic Study.)

ALTERNATIVE BATEMAN AREA TREATMENT

The Study lists the following alternate proposals:

Alternative 1: The Recommended Alternative

Alternative 2: Smaller Scale Project:

This alternative is the same as Alternative 1 except that it does not have the road closures of Dana at Webster or Webster at Bateman.

TABLE 2-5

PROPOSALS FOR BATEMAN NEIGHBORHOOD AREA

Map Key #1

Dana and Webster:

Dana Street should be closed south of Webster. This closure will protect the adjacent residential area and will emphasize the proposed circulation pattern.

Map Key #2

Colby as Prince:

The existing street closure should be moved south of the entrance to the physician parking lot. This will prevent drivers from utilizing the parking lot as a by-pass to circumvent the closure. This closure should be passable by emergency vehicles.

Map Key #3

Regent at South Hospital Drive:

Regent Street should be closed just south of South Hospital Drive. This installation will provide positive definition of the selected hospital circulation route at this T intersection. The closure should be passable by emergency vehicles.

Map Key #4

Webster at Bateman:

Webster Street should be closed west of Bateman. This closure will provide circulation system definition and protect the neighborhood from hospital oriented traffic.

The boundary between R1 and R3 zoning is located west of Bateman Street on Webster, and the proposed closure will include the 2510 Webster Street Medical Building within the medical traffic pattern.

Map Key #5

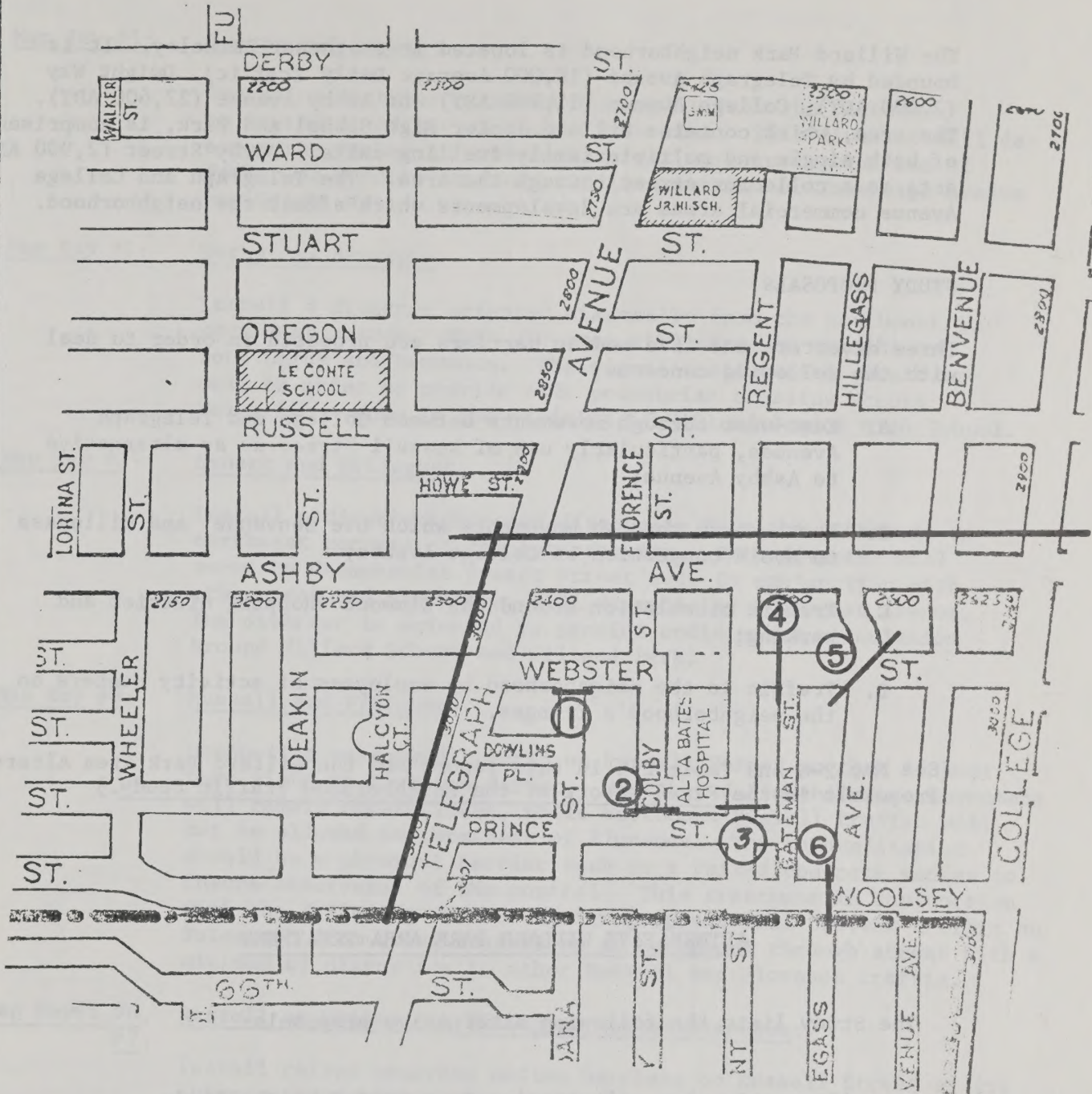
Webster and Benvenue:

Install a diverter oriented diagonally from the southwest to the northeast corners of the intersection. This diverter will de-emphasize Benvenue and Webster as through streets. It will also prevent the use of Benvenue and Webster as a corner-cutting route to avoid the Ashby and College intersection.

Map Key #6

Woolsey at Hillegass:

Install a diverter oriented diagonally from the northwest to southeast corners of the intersection. This diverter will de-emphasize Hillegass and Woolsey as through routes.



PROPOSED TREATMENT
FOR BATEMAN AREA

ENVIRONMENTAL IMPACT REPORT

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RECOMMENDED WILLARD PARK AREA TREATMENT

The Willard Park neighborhood is located in southeast Berkeley. It is bounded by Telegraph Avenue (18,000 Average Daily Traffic), Dwight Way (7,000 ADT), College Avenue (11,300 ADT) and Ashby Avenue (22,600 ADT). The area, which contains Willard Junior High School and Park, is comprised of both single and multiple family dwelling units. Derby Street (2,900 ADT) acts as a collector street through the area. The Telegraph and College Avenue commercial areas are developments which affect the neighborhood.

STUDY PROPOSALS

Three diverters and five median barriers are proposed in order to deal with the following concerns:

- A. East-west through movements between College and Telegraph Avenues, particularly use of Russell Street as an alternative to Ashby Avenue;
- B. North-south through movements which use Benvenue and Hillegass to avoid congestion on College Avenue;
- C. Traffic circulation around the Elmwood shopping district and parking;
- D. Traffic in the neighborhood by employees of activity centers on the neighborhood's fringes.

(See Map 2-6 and Table 2-6 in this report and the Willard Park Area Alternate Proposals in the Final Report of the Neighborhood Traffic Study.)

ALTERNATIVE WILLARD PARK AREA TREATMENT

The Study lists the following alternative proposals:

Alternative 1: Alternative Recommended by the Study

Alternative 2: No Installation of Diverters or Median Barriers

TABLE 2-6

PROPOSALS FOR WILLARD PARK AREA

Map Key #1: Regent and Parker:

Install a diverter oriented diagonally from the northwest to southeast corner of the intersection. This diverter will de-emphasize Parker as a through street, preventing the use of Parker as a route to avoid the intersection of Telegraph Avenue and Dwight Way.

Map Key #2: Derby and Benvenue:

Install a diverter oriented diagonally from the southeast to northwest corner. This diverter will serve to deemphasize both Derby and Benvenue. The signal installation should remain in order to provide safe pedestrian crossing across Telegraph Avenue in the vicinity of Willard Junior High School.

Map Key #3: Stuart and Hillegass:

Install a diverter oriented diagonally from the southwest to northeast corners of the intersection. This diverter will serve to deemphasize Stuart Street and, in conjunction with other proposed diverters, will deemphasize Hillegass Avenue. The diverter is oriented to provide undisturbed circulation around Willard School and Willard Park.

Map Key #4: Russell and Florence:

Channelize eastbound traffic on Russell Street so that it must turn right at Florence Street. Northbound Florence turn movements will remain unrestricted, while westbound Russell traffic will not be allowed to turn left at Florence. The channelization should be a physical barrier such as a raised concrete median to insure observance of the control. This treatment in conjunction with the following median barrier proposal will prevent traffic on Telegraph from using Russell as an eastbound through street with a minimum of disruption to other Russell and Florence traffic.

Map Key #5, #6, #7: Russell at Regent, at Hillegass and at Benvenue:

Install raised concrete median barriers on Russell Street at its intersections with Regent, Hillegass and Benvenue. This will restrict through traffic on these streets crossing Russell, while not obstructing traffic flow on Russell which is vital to its function as an important westbound fire vehicle route.

Map Key #8: Florence at Ashby:

The raised median proposed under Alternative 1 in Bateman Neighborhood would allow only right-turn movements in and out of Florence at Ashby. The median is being proposed as an element of the Ashby and Colby signal installation. This median treatment and the exclusion of Florence from the proposed signalization will ensure that Florence remains in local street use.

RECOMMENDED NORTH LE CONTE AREA TREATMENT

The North LeCone neighborhood is located in south central Berkeley. It is bounded by Adeline Street (8,000 Average Daily Traffic), Ashby Avenue (22,000 ADT), Shattuck Avenue (16,500 ADT), Dwight Way (10,000 ADT) and Telegraph Avenue (18,000 ADT). The neighborhood contains both single and multiple family dwelling units. Fulton Street (8,800 ADT) is a designated collector, while Ellsworth Street (5,100 ADT), which forms the other half of the Fulton-Ellsworth one-way pair, is not designated. Other factors affecting traffic and transportation are the commercial developments along Telegraph and Shattuck Avenues.

Fulton Street is an element of the Master Plan designated circulation system which, in conjunction with Oxford Street, provides continuity linkage in the southbound direction between northern Berkeley and Ashby Avenue skirting the U. C. Campus and downtown Berkeley. Ellsworth Street is not designated as an element of the Master Plan circulation system, but since 1964, when it was placed in one-way couplet operation with Fulton, it has functioned as a de facto element of that system. Whether Fulton and/or Ellsworth can be detached from Berkeley's circulation system is the crux of the question whether the area bounded by Ashby, Shattuck, Dwight and Telegraph can, as an integral unit, be protected from through traffic. Residents believe the area cannot properly function as a neighborhood unless Fulton and Ellsworth are defined as local streets and that status protected by physical traffic controls.

STUDY PROPOSALS

Six Alternative Proposals are suggested by the Neighborhood Traffic Study. No alternative is recommended for immediate action. However, the report commentary obviously indicates a preference for Alternative #6 and the report states:

"For these reasons, it is recommended that if and as the City makes commitments and implements plans and policies capable of bringing about overall traffic rollbacks in Berkeley which would cancel the negative external impacts of Alternative 5 or 6 in the Claremont-Belrose-Derby corridor, either of these schemes could be implemented."

(See LeConte Area discussion in the Final Report of the Neighborhood Traffic Study and Table 2-7 and Map 2-7 in this report.)

TABLE 2-7

PROPOSALS FOR NORTH LE CONTE AREA

Ellsworth and Fulton are returned to two-way traffic.

Map Key #1: Ellsworth and Parker

Map Key #2: Ellsworth and Derby

Map Key #3: Ellsworth and Oregon:

Diverters are deployed on a northeast-southwest orientation at these intersections

Map Key #4: Fulton and Carleton

Map Key #5: Fulton and Ward

Map Key #6: Fulton and Stuart:

Street closures are placed east of Fulton in order to prevent east-west traffic movements through the streets

Map Key #7: Fulton and Russell:

A street closure would be placed west of Fulton in order to prevent east-west traffic movements on Russell.

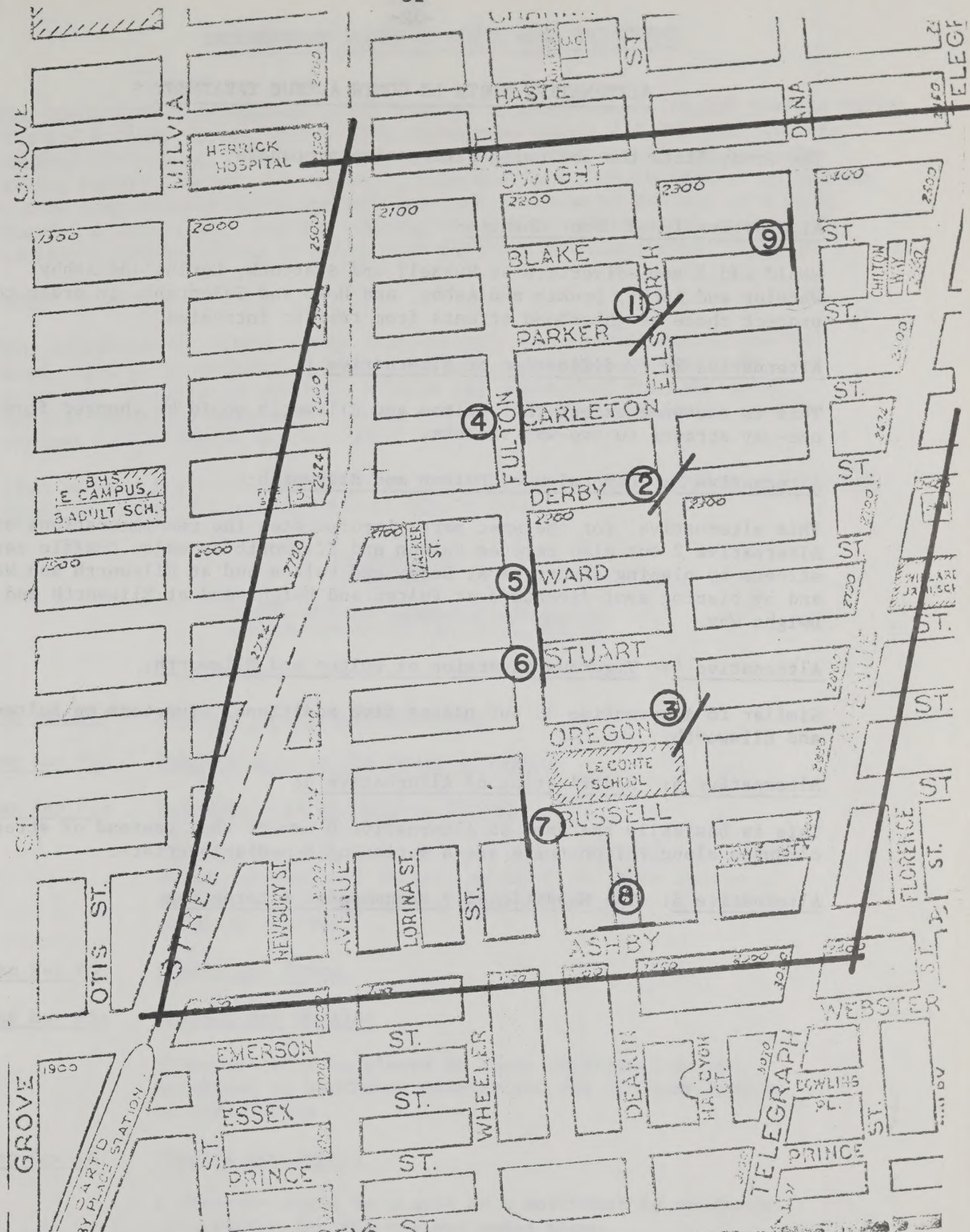
Map Key #8: Ashby and Deakin:

Deakin Street would be closed north of Ashby Avenue

Map Key #9: Dana and Blake:

Close Blake Street just west of Dana Street

* These proposals are those made in Alternative #6 and are conditioned as noted above.



PROPOSED TREATMENT FOR NORTH LE CONTE AREA

— Divorter, Semi-Divorter
or Closure

ENVIRONMENTAL IMPACT REPORT FOR BERKELEY NEIGHBORHOOD TRAFFIC STUDY

ALTERNATIVE NORTH LE CONTE AVENUE TREATMENT *

The Study lists the following alternative proposals:

Alternative 1 and Minor Changes:

Would add 5 semi-diverters at Russell and Shattuck, Lorina and Ashby, Wheeler and Ashby, Deakin and Ashby, and Howe and Telegraph, in order to protect those neighborhood streets from traffic intrusion.

Alternative 2: Modification of Alternative 1:

This is the same except that Fulton and Ellsworth would be changed from one-way streets to two-way streets.

Alternative 3: Diversion of Fulton and Ellsworth:

This alternative, for the most part, incorporates the recommendations of Alternative 2 but also removes Fulton and Ellsworth as major traffic carry streets by placing diverters at Derby and Fulton and at Ellsworth and Ward, and by placing semi-diverters at Fulton and Dwight and at Ellsworth and Dwight Way.

Alternative 4: Vigorous Diversion of Fulton and Ellsworth:

Similar to Alternative 3, but places five additional diverters on Fulton and Ellsworth.

Alternative 5: Modification of Alternative 6:

This is basically the same as Alternative 6 except that instead of street closures along Fulton there are a series of 8 median barriers.

Alternative 6: The Conditionally Recommended Alternative

* See Final Report for Details.

RECOMMENDED SOUTH LE CONTE AREA TREATMENT

The South LeConte Neighborhood is bounded by Ashby Avenue (8,000 Average Daily Traffic), Adeline Street (8,000 ADT), Telegraph Avenue (18,000 ADT) and the Oakland City Limit. The neighborhood contains both single and multiple-family dwelling units. Problems in this area are through traffic on Woolsey (1,500 ADT) between Telegraph and Shattuck, the use of Woolsey as a BART Station access route, and the cutting through of neighborhood streets to avoid the intersections of Ashby with Shattuck and Ashby with Telegraph.

STUDY PROPOSALS

The Neighborhood Traffic Study presents only one recommendation for the area, with no alternates. This is because, according to the study, the proposals "compose an integral package for protecting this sub-area. Options regarding details of design are possible but locational modifications do not appear to have merit."

(See LeConte Area discussion in the Final Report of the Neighborhood Traffic Study and Table 2-8 and Map 2-8 of this report.)

TABLE 2-8

PROPOSALS FOR SOUTH LE CONTE AREA

Map Key #1: Wheeler south of Ashby Avenue

Map Key #2: Webster west of the Co-op Driveways

Map Key #3: Halcyon Court at Webster Street

These streets will be closed, to prevent through traffic using neighborhood streets parallel to Ashby Avenue as well as to protect the neighborhood from circulating shopping traffic.

Map Key #4: Deakin and Prince

Map Key #5: Woolsey and Wheeler

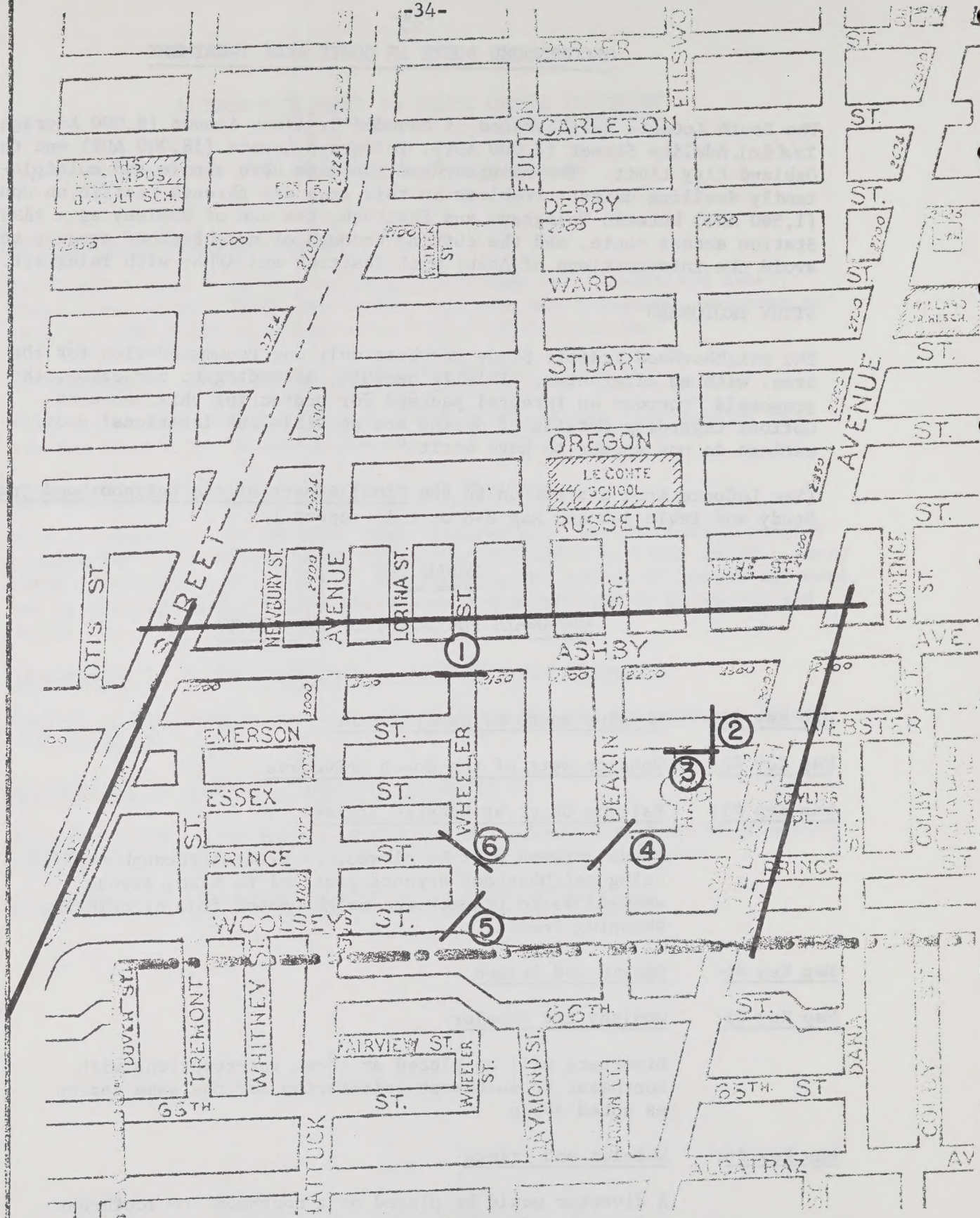
Diverters will be placed at these intersections with northeast to southwest orientation for the same reason as noted above.

Map Key #6: Wheeler and Prince

A diverter would be placed on a northwest to southeast orientation for the reasons noted above.

ALTERNATIVE SOUTH LE CONTE AREA TREATMENT

The Study suggests no alternative treatments other than that given above.



PROPOSED TREATMENT
FOR SOUTH LE CONTE AREA

— Divorter, Semi-Divorter
or Closure

ENVIRONMENTAL IMPACT REPORT
FOR

BERKELEY NEIGHBORHOOD TRAFFIC
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RECOMMENDED McGEE - SAVO ISLAND AREA TREATMENT

The McGee-Savo Island area is located in southwest Berkeley. It is bounded by Sacramento Street (16,500 Average Daily Traffic), Dwight Way (10,000 ADT), Shattuck Avenue (16,500 ADT). A Major Street within the area is Grove Street (15,400 ADT). Milvia Street has problems with non-neighborhood traffic.

STUDY PROPOSALS

The primary emphasis in this area was on traffic safety measures, such as Stop Signs. Four traffic diverters have also been proposed.

(See Southwest Berkeley Neighborhood discussion in the Final Report of the Neighborhood Traffic Study and Table 2-9 and Map 2-9 of this report.)

TABLE 2-9

PROPOSALS FOR McGEE-SAVO ISLAND AREA

Map Key #1: California at Carleton:

Install a diverter with a northwest to southeast orientation to replace the STOP signs suggested in Item 28 of Alternative 1. The diverter will serve to further deemphasize California as a through street and add emphasis to use of California for local circulation and as a bicycle street.

Map Key #2: Grant and Derby:

Install a diverter on a northeast to southwest orientation. This diverter would serve the dual function of deemphasizing both streets.

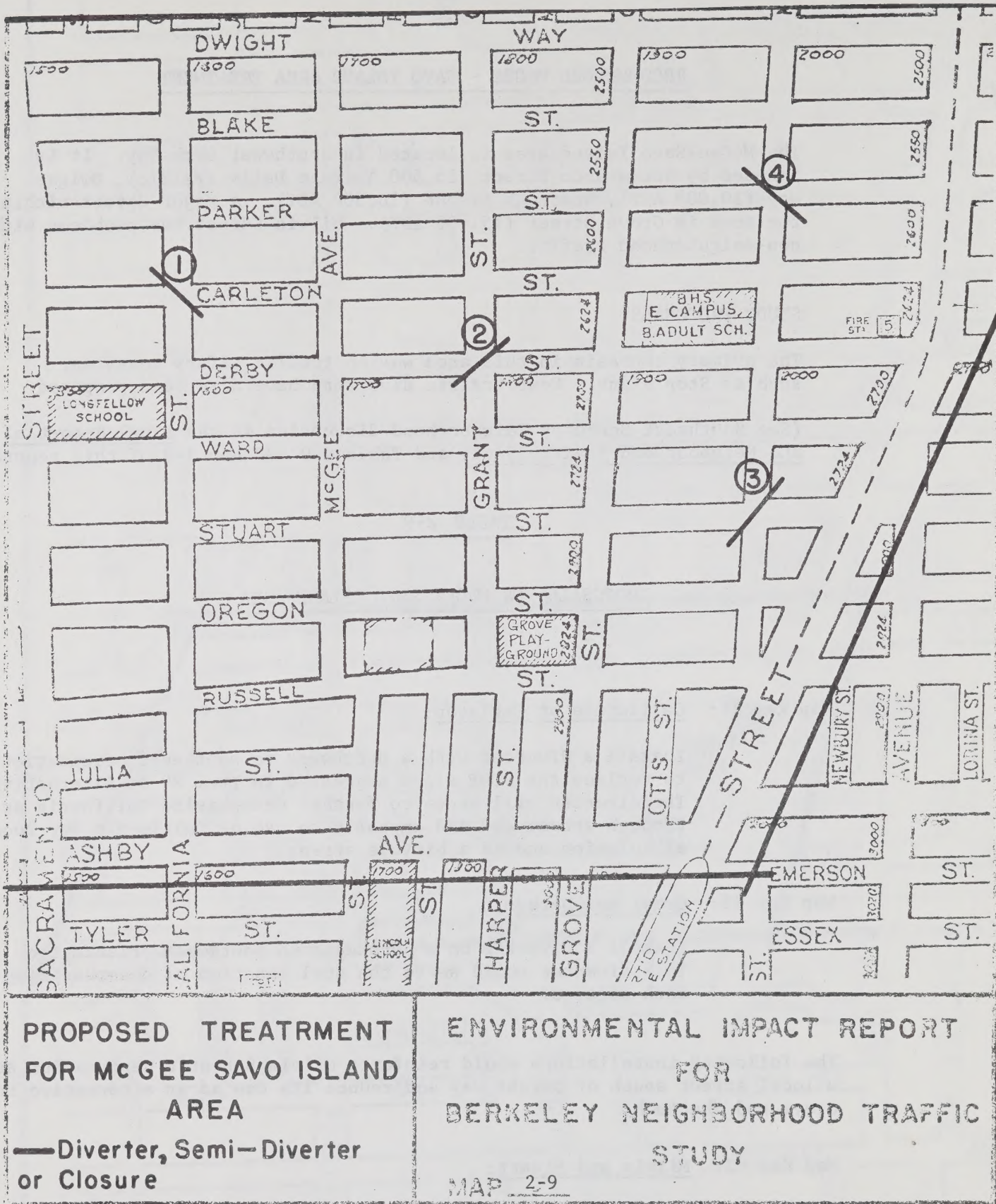
The following installations would reinforce Milvia Street's designation as a local street south of Dwight Way and reduce its use as an alternative to Grove and Shattuck:

Map Key #3: Milvia and Stuart:

Install a diverter at this intersection on a northeast to southwest orientation.

Map Key #4: Parker and Milvia:

Install a diverter at this location with a northwest to southeast orientation (existing).



ALTERNATIVE McGEE - SAVO ISLAND TREATMENT

The only alternative suggested it not to place any diverters and simply make extensive use of signs and similar devices.

RECOMMENDED SUDS - FLATLANDS AREA TREATMENT

The Flatlands neighborhood is located west of central Berkeley. It is bounded by major arterials -- Sacramento Street (15,000 Average Daily Traffic), University Avenue 30,000 ADT), Grove Street (19,000 ADT) and Dwight Way (10,000 ADT). The neighborhood, which contains a portion of the Civic Center, is comprised of single family dwelling units and some multiple family units. Bancroft Way (2,500 ADT) and Allston Way (6,200 ADT) penetrate the neighborhood and currently function as collectors. Other factors in the area are the commercial areas at Sacramento Street and Grove Street along Dwight Way and the extensive commercial development along University Avenue. East-west traffic is also a problem on Addison Street (3,600 ADT) and portions of Channing Way west of Grove Street.

The SUDS area is immediately to the west of the Flatlands area. It is bounded on four sides by major arterials -- University Avenue (32,000 ADT), Sacramento Street (15,500 ADT), Dwight Way (9,000 ADT) and San Pablo Avenue (25,000 ADT). The neighborhood, which contains the City Corporation Yard, is comprised of single family dwelling units with some multiple family units. Bancroft Way (2,000 ADT) and Allston Way (5,500 ADT) currently function as collectors and penetrate the neighborhood. Major factors affecting traffic and transportation in the area are the intensive commercial developments along San Pablo and University Avenues, and the shopping area near the Dwight Way and Sacramento Street intersection.

The "Flatland" area adjoins the downtown business district and is subject to considerable spillover parking problems, particularly with City Hall employees and Post Office Employees. Special events at the Berkeley Community Theater also create parking problems in the neighborhood.

STUDY PROPOSALS

Three alternative proposals are suggested by the Neighborhood Traffic Study. No alternative is recommended. Instead, the Study states the following:

"In summary, conditions in the SUDS-Flatlands area are such that there does not appear to be a workable scheme which provides significant traffic reduction benefits to the neighborhood as a whole. Selection of either Alternative 1 or 2 confirms Allston's current de facto role as a collector street, Alternative 1 implicitly by acceptance of current traffic volume levels on the street, Alternative 2 positively by diverting traffic from parallel streets to it. Alternative 3, while confirming and reinforcing a local street role for Allston, negatively affects Bancroft and Addison. Acceptance of this alternative is at conflict with the stated Master Plan circulation section principle of concentrating traffic on a minimum number of streets in lower density residential areas. Instead, it effectuates a distribution over as many streets as possible that traffic which cannot be diverted from the neighborhood. In the final analysis, achievement of net traffic reduction for the neighborhood as a whole

RECOMMENDED SUDS - FLATLANDS AREA TREATMENT -- (CONTINUED)

STUDY PROPOSALS (CONTINUED)

"is dependent on programs and policies to bring about City-wide traffic reductions rather than on internal neighborhood traffic management schemes. Such programs and policies are discussed in detail in the companion Policy Analysis report. A further possibility relates to land-use measures. The basic cause of the high level of traffic on streets of this neighborhood in general, and on Allston Way in particular, is the high concentration of major non-residential activity centers in and around the neighborhood. By and large, these activity centers are not subject to change or relocation. However, from time to time, there may be opportunities for relocation of non-residential activity generators to areas in which they would not contribute to local neighborhood traffic problems. The City Corporation Yard which may account for over 15 percent of the traffic activity on Allston Way is a case in point. If this facility could be relocated to a site in an industrial rather than residential area, meaningful reductions in traffic on Allston would likely result."

NOTE: At the time of the preparation of this EIR, the consultant's had not finalized a recommendation for this area. For the purposes of impact analysis in Chapter Five, Alternative #2 will be analyzed since it would result in the most significant traffic shifts.

(See discussion of SUDS-Flatlands South Campus Neighborhood in the Final Report of the Neighborhood Traffic Study. See also Map 2-10 and Table 2-10 of this EIR.)

TABLE 2-10 - 1

ALTERNATE 1 PROPOSALS FOR SUDS-FLATLANDS AREA

Map Key #1: Acton and Addison:

Install a semi-diverter prohibiting southbound vehicles from entering Acton. Northbound vehicles will still be permitted. This will deemphasize Acton as a through route south of Addison.

Map Key #2: Roosevelt and Channing:

Design and construct cul-de-sac closures of both streets at their intersection. This would effectively eliminate through traffic and respond to the expressed desire of neighborhood residents for such a closure. The existing bar diverter would be replaced and not utilized in the closure design solution.

Map Key #3: McKinley between Channing and Bancroft:

Close the street permanently in order to create "an integrated, free-flowing space around Washington School" as specified by the Washington Environmental Yard project. The project is being jointly implemented by the Berkeley Unified School District and the Berkeley Department of Recreation and Parks. Currently, the street is closed to traffic during school hours. Permanent closure is not expected to adversely impact the area, although it would require special arrangements to maintain access to the yard at the rear of the "Church of the Nazarene" property which fronts on the structure and possibly provisions for parking in the "closed zone" during Sunday services.

Map Key #4: Channing and Grove:

Install a semi-diverter to prohibit westbound traffic from entering Channing. Eastbound traffic will still be permitted. The semi-diverter will deemphasize Channing as a through route.

TABLE 2-10-2

ALTERNATIVE 2 PROPOSALS FOR SUDS - FLATLANDS AREA

Map Key #5: Bancroft and Grant:

Install a diverter with northwest to southeast orientation to deemphasize Bancroft as a through route. This diverter interrupts the designated fire route and the school bus routes so it would be designed to be passable by designated vehicles.

Map Key #6: California and Channing:

Install a diverter with northeast to southwest orientation to deemphasize California as a through route. The diverter will not interfere with school bus or designated fire routes, but would be designed to allow east bicycle passage.

Map Key #7: Bancroft and Bonar:

Install a diverter with a northwest to southeast orientation to deemphasize Bancroft as a through route. This diverter will interrupt a school bus route but the route can be changed to bypass the diverter.

Map Key #8: Channing and Curtis:

Install a diverter with a northeast to southwest orientation to deemphasize Channing and Curtis as through streets. This diverter interrupts the school bus route but buses can be rerouted. Curtis and Channing are not designated as official fire routes.

Map Key #9: McGee and Addison:

Install a diverter with a northeast to southwest orientation to deemphasize Addison as a through route. This diverter will interrupt a school bus route but it is probable that the route can be changed. However, if this creates a problem, the diverter can be made passable.

Map Key #10: Allston between Grove and Sacramento:

Construct chokers to narrow Allston at each intersection between Grove and Sacramento. This treatment would promote pedestrian and vehicular crossing traffic safety by improving sight distances and decreasing the exposure width of the crossing. The chokers would be designated to provide aesthetic relief and visual continuity along the route.

TABLE 2-10-3

ALTERNATIVE 3 PROPOSALS FOR SUDS-FLATLANDS AREA

This alternative adds diverters along Allston Way to eliminate it as a through route and would complete the diversion of all local east-west streets in the neighborhood. Diverter locations on Allston would be as follows:

Map Key #11: Allston and Grant:

Install a diverter with a northeast to southwest orientation.

Map Key #12: Allston and California:

Install a diverter with a northwest to southeast orientation.

Map Key #13: Bancroft and California:

If Allston is diverted at the above two locations (Map Keys #11 and #12) then another diverter would be required on Bancroft to prevent it from serving as a usable bypass route. The additional diverter on Bancroft would be located at California and would have a northeast to southwest orientation.



ALTERNATIVE 1



ALTERNATIVE 2



ALTERNATIVE 3

PROPOSED TREATMENT
FOR SUDS-FLATLANDS
AREA
—Diverter, Semi-Diverter
or Closure

ENVIRONMENTAL IMPACT REPORT
FOR
BERKELEY NEIGHBORHOOD TRAFFIC
STUDY

RECOMMENDED NORTHGATE AREA TREATMENT

The Northgate neighborhood adjoins the north edge of the University of California campus in east central Berkeley. It is bounded by four arterials -- Hearst Avenue (12,000 Average Daily Traffic), Shattuck Avenue (16,000 ADT), Oxford Street (15,000 ADT) and University Avenue (14,000 ADT); and by a collector -- Cedar Street (5,500 ADT). The neighborhood, which contains the Graduate Theological Union and two University parking structures, is comprised of multiple family dwelling units with some single family units. Euclid Avenue (8,500 ADT), designated a collector, penetrates the neighborhood and provides access to the Hill neighborhood. LaLoma and LeConte Avenues (5,000 ADT) act as collectors. Other factors affecting traffic and transportation in the area are the shopping district on Euclid Avenue within the two blocks north of Hearst Avenue and the commercial development along Shattuck and University Avenues.

STUDY PROPOSALS

Three diverters and two street closures are proposed, primarily to discourage extraneous traffic and non-resident parkers from the neighborhood street network.

(See Map 2-11 and Table 2-11 in this report and the Hillside - Northgate proposals in the Final Report of the Neighborhood Traffic Study.)

TABLE 2-11 PROPOSALS FOR NORTHGATE AREA

Map Key #1: LeRoy and Virginia

Map Key #2: LeRoy and LeConte

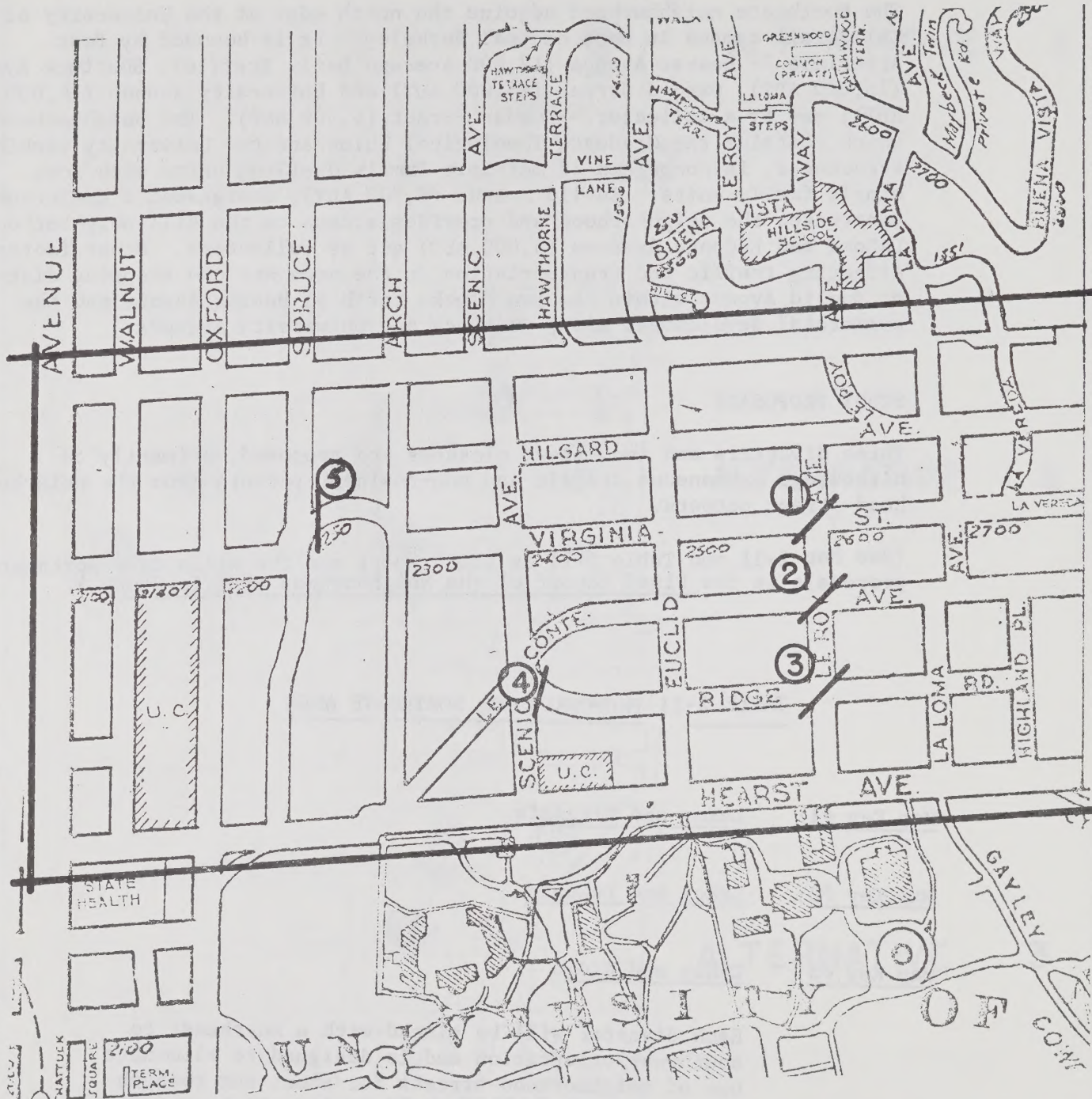
Map Key #3: LeRoy and Ridge

Each diverter will be placed with a northeast to southwest orientation and is designed to eliminate use of neighborhood streets for short cut through movements between Gayley and Euclid which currently attempt to avoid the Hearst-Euclid intersection and the congested block of Euclid between Hearst and Ridge Road.

Map Key #4: Ridge and Scenic

Closure will result in eliminating through traffic circulation on Ridge Road west of Euclid Avenue.

Map Key #5: Virginia and Spruce



PROPOSED TREATMENT FOR NORTHGATE AREA

— Divorter, Semi-Divorter
or Closure

ENVIRONMENTAL IMPACT REPORT FOR BERKELEY NEIGHBORHOOD TRAFFIC STUDY

ALTERNATIVE NORTHGATE AREA TREATMENT *

The Study lists the following alternate proposals:

Alternative 1: Least Impact Proposal:

This proposal consists mainly of signs and other traffic control devices and includes only the diverter at Virginia and Spruce.

Alternative 2: The Recommended Alternative

Alternative 3: Modification of Alternative 2:

The same as Alternative 2 except that two more diverters are installed at Hilgard and Scenie and at Virginia and Scenic.

Alternative 4: Modification of Alternative 3:

The same as Alternative 3 except that an additional diverter is installed at Ridge and LaLoma.

*See Final Report for details.

NORTH BERKELEY -- COW HOLLOW NEIGHBORHOOD

The North Berkeley neighborhood is located north of central Berkeley. It is bounded by four designated arterials -- University Avenue (27,000 Average Daily Traff.), Shattuck Avenue (16,000 ADT), Grove Street 14,000 ADT) and Sacramento Street (12,500 ADT); one designated collector -- Cedar Street (6,500 ADT)

The neighborhood has both single and multiple family dwelling units. The designated collectors, Rose Street (4,500 ADT), Hearst Avenue (5,000 ADT) and Milvia Street (3,000 ADT) penetrate the area. Factors affecting traffic and transportation are the intensive commercial developments along San Pablo Avenue, Shattuck and University Avenues and the North Shattuck shopping district centered on Vine Street.

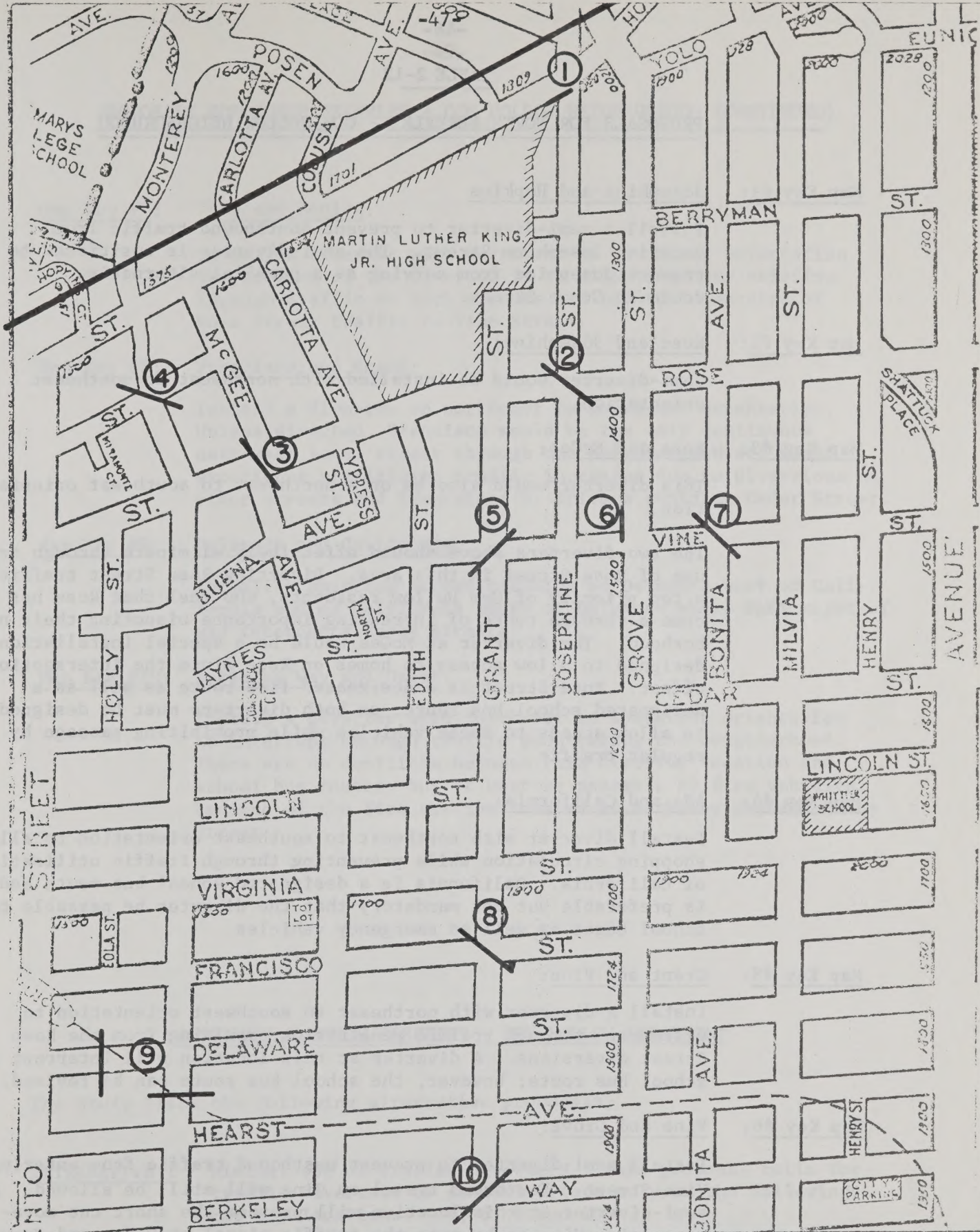
The Cow Hollow neighborhood is bounded by two arterials -- Grove Street (14,000 ADT), and Sacramento Street (9,000 ADT) -- and by two collectors -- Hopkins Street (3,500 ADT) and Cedar Street (6,500 ADT). The neighborhood, which contains Martin Luther King Junior High School, is comprised of single family dwelling units. Rose Street (3,100 ADT) penetrates the neighborhood and functions as a collector. Other factors affecting traffic and transportation in the area are the commercial developments along Grove Street and at Hopkins and Monterey Avenue. Primary interest groups are the Cow Hollow Neighborhood Association and the North Berkeley Neighborhood Association which claims representation for this area.

The major local street issue in the Cow Hollow neighborhood relates to the increasing amount of through traffic along Rose Street and the need to de-emphasize it as a through street, as well as general traffic reductions on the local streets in the "superblock" which is defined by the bounding designated circulation system streets -- Grove, Cedar, Hopkins and Sacramento. While most of the issues center around intrusion of through traffic into the neighborhood, there is concern with pedestrian safety at selected crossings, speeding and operation of the major streets bounding the neighborhood.

Residents of the North Berkeley neighborhood area share concerns with Cow Hollow residents about impact of through traffic in this part of the city. The two neighborhoods also share a concern for increased traffic in the neighborhoods related to the North Berkeley BART station, particularly for the traffic which may result when transbay service is initiated.

STUDY PROPOSALS

In order to achieve the aims noted above, seven diverters and two semi-diverters are proposed. In addition, the existing closure of two streets is reaffirmed. (See Map 2-12 and Table 2-12 in this report and the North Berkeley Cow Hollow Neighborhood proposals in the Final Report of the Neighborhood Traffic Study.)



**PROPOSED TREATMENT
FOR NORTH BERKELEY
COW HOLLOW AREA**

— Diverter, Semi-Diverter
or Closure

**ENVIRONMENTAL IMPACT REPORT
FOR
BERKELEY NEIGHBORHOOD TRAFFIC
STUDY**

TABLE 2-12

PROPOSALS FOR NORTH BERKELEY - COW HOLLOW NEIGHBORHOOD

Map Key #1: Josephine and Hopkins

Install a semi-diverter to prevent southbound traffic from entering Josephine Street. The semi-diverter is positioned to prevent Josephine from serving as a parallel alternative route to Grove Street.

Map Key #2: Rose and Josephine:

Semi-diverter would be installed with northwest to southeast orientation.

Map Key #3: Rose and McGee:

This diverter would also be on a northwest to southeast orientation.

The two diverters above should effectively eliminate through traffic use of Rose Street in this area. Diverting Rose Street traffic is a top priority of Cow Hollow residents, who feel that Rose has become a through route of increasing importance bisecting their neighborhood. The diverter at McGee would be a special installation designed to allow access to homes on Rose since the intersection is offset. Rose Street is a designated fire route as well as a designated school bus route, so both diverters must be designed to allow access to these vehicles while prohibiting passage by regular traffic.

Map Key #4: Ada and California:

Install diverter with northwest to southeast orientation to allow shopping circulation while preventing through traffic utilization of California. California is a designated school bus route and it is preferable but not mandatory that the diverter be passable to school buses as well as emergency vehicles.

Map Key #5: Grant and Vine:

Install a diverter with northeast to southwest orientation to discourage through traffic penetration resulting from the Rose Street diversions. A diverter at this location will interrupt the school bus route; however, the school bus route can be revised.

Map Key #6: Vine and Grove:

Install semi-diverter to prevent westbound traffic from entering Vine Street. Eastbound travel on Vine will still be allowed. A semi-diverter at this location will prevent the short cut movement using Vine to by-pass the traffic signal at Cedar and Grove.

(Continued on next page)

PROPOSALS FOR NORTH BERKELEY - COW HOLLOW NEIGHBORHOOD (CONTINUED)

Map Key #7: Vine and Bonita:

Install a diverter with northwest to southeast orientation. The purpose of the diverter is to discourage any existing through-traffic on both streets and prevent diversion of Rose Street traffic to Vine Street.

Map Key #8: Francisco and Grant:

Install a diverter on northwest to southeast orientation. Unless diverted, Francisco would be the only continuous east-west local street through the neighborhood and would experience significant traffic increases due to diversions on other streets and incursions by drivers avoiding Cedar Street.

Map Key #9: Delaware and California:

Formalize existing street closures on Delaware west of California and on California south of Delaware where BART right-of-way intercepts these streets.

Map Key #10: Berkeley Way and Grant:

Install a diverter with northeast to southwest orientation to interrupt through traffic penetrating the neighborhood. There are no conflicts between this diverter location and school bus routes, but it must be passable by fire vehicles because of the fire station located at Berkeley Way and Henry Street.

ALTERNATIVE NORTH BERKELEY - COW HOLLOW TREATMENT

The Study lists the following alternative proposals:

ALTERNATIVE 1: Minimal use of traffic diverters. This proposal calls for traffic diverters or semi-diverters only on the following Map Key locations: 4, 6, 9 and 10.

ALTERNATIVE 2: The Recommended Alternative.

RECOMMENDED THOUSAND OAKS AREA TREATMENT

The Thousand Oaks Area (Hill Neighborhood - West) is a neighborhood of single-family homes. The area is bounded by Hopkins Street (3,500 Average Daily Traff.), The Arlington (8,000 ADT), Sutter Street, and by the City of Albany to the west and the Unincorporated District of Kensington to the north. Major streets are Marin (3,200 ADT), The Alameda (4,200 ADT) Solano Avenue (7,00 - 13,000 ADT) Monterey Avenue (4,800 ADT) and Colusa (7,000 ADT). The Solano Avenue shopping area also draws traffic and parking problems to portions of the area as does the commercial development at Hopkins and Monterey.

STUDY PROPOSALS

In order to protect a limited number of streets from non-resident traffic one semi-diverter and one street closure is recommended. Since the diversion of traffic from the two streets (Fresno and Napa Avenues) would not have any significant environmental impact, the details are not presented here. (For details see the Hillside Neighborhood (West) Alternative 2 in the Final Report of the Neighborhood Traffic Study.)

ALTERNATIVE THOUSAND OAKS AREA TREATMENT

Some of the alternative proposals (not the recommended alternative) would have significant impact and are therefore discussed in more detail than the recommended alternative:

Alternative 1: Napa Avenue Street Closure:

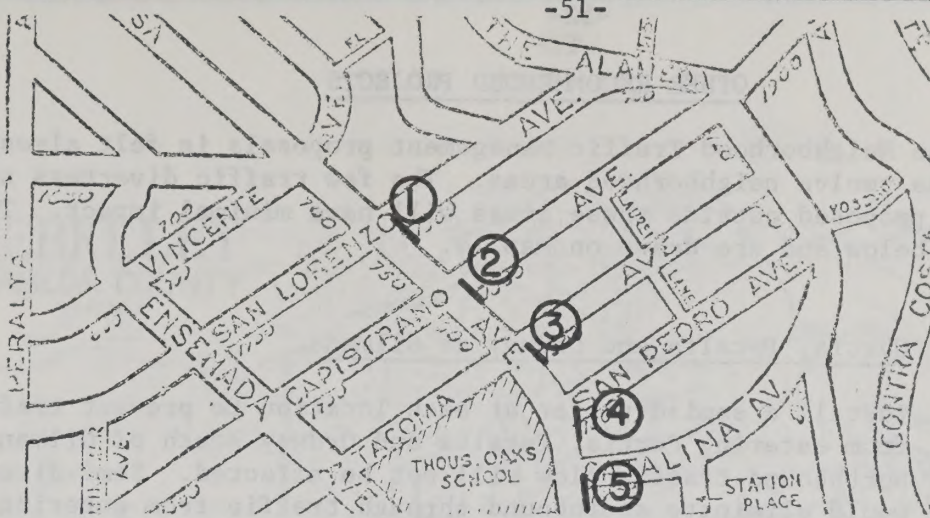
This alternative recommended a number of safety measures such as stop signs plus the closure of Napa Avenue at Hopkins Street.

Alternative 2: The Recommended Alternative:

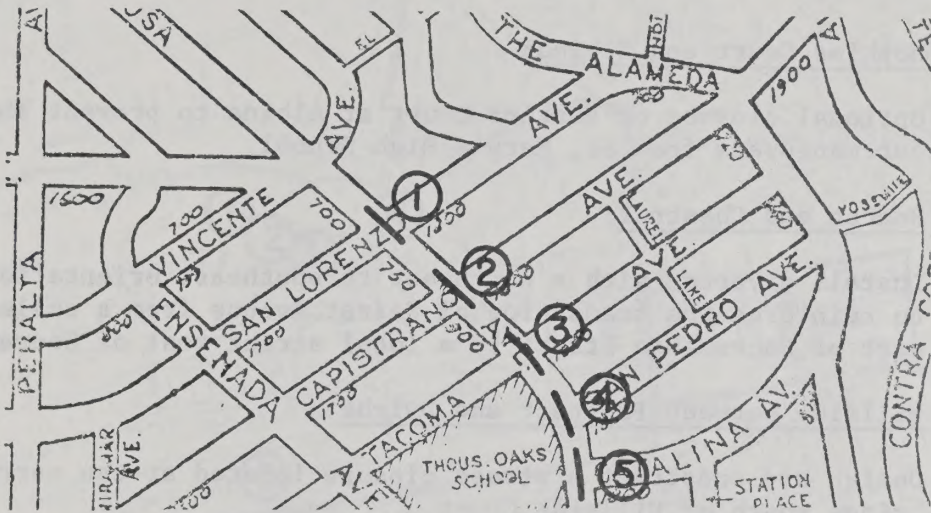
This is basically the same as Alternative 1, except that a semi-diverter is also placed on Fresno at Solano Avenue to prevent commercial traffic from entering from Solano

Alternatives 3, 4 and 5: Colusa Feeder Street Treatment:

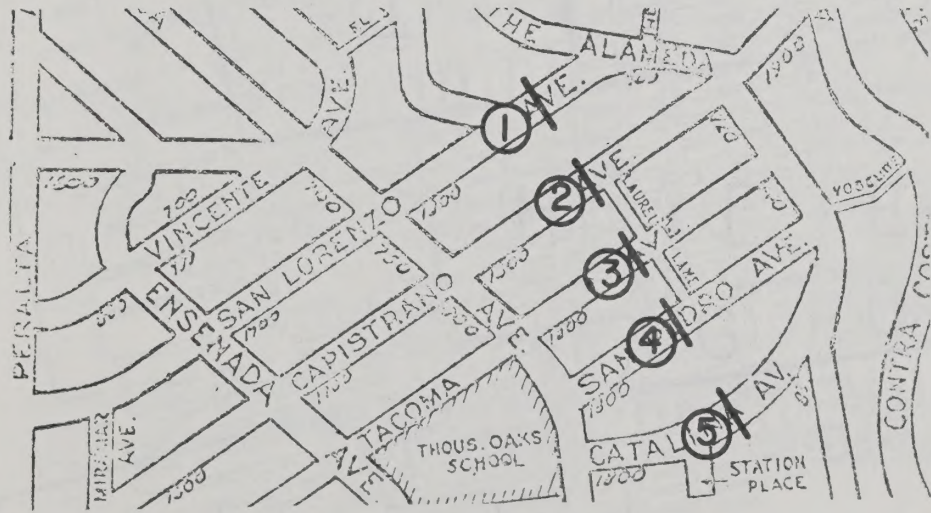
In order to prevent through traffic on San Lorenzo, Capistrano, Tacoma, San Pedro and Catalina, three different schemes using traffic diverters, street closures or median diverters were presented (See Map 13).



ALTERNATIVE 3 SEMI-DIVERTER



ALTERNATIVE 4 MEDIAN DIVERTER



ALTERNATIVE 5 ROAD CLOSURES

**PROPOSED TREATMENT
FOR COLUSA-FEEDER STREETS
(Not Recommended)**

— Diverter, Semi-Diverter
or Closure

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OTHER RECOMMENDED PROJECTS

The impact of the Neighborhood Traffic Management proposals is felt almost entirely within the twelve neighborhood areas. The few traffic diverters and street closures proposed outside these areas will have minimal impact. They are, however, listed below and are drawn on Map 14.

Map Key # 1,
#2, #3:

Curtis, Peralta and Ordway at Gilman:

Install a semi-diverter at each location to prevent traffic from entering Curtis, Peralta and Ordway south of Gilman. Northbound traffic flow will not be affected. Semi-diverters would eliminate southbound through traffic from entering each street.

Map Key #4:

Hopkins Court and Albina:

Optional closure of Hopkins Court at Albina to prevent short cut maneuvers from St. Mary's High School.

Map Key #5:

Hearst and Chestnut:

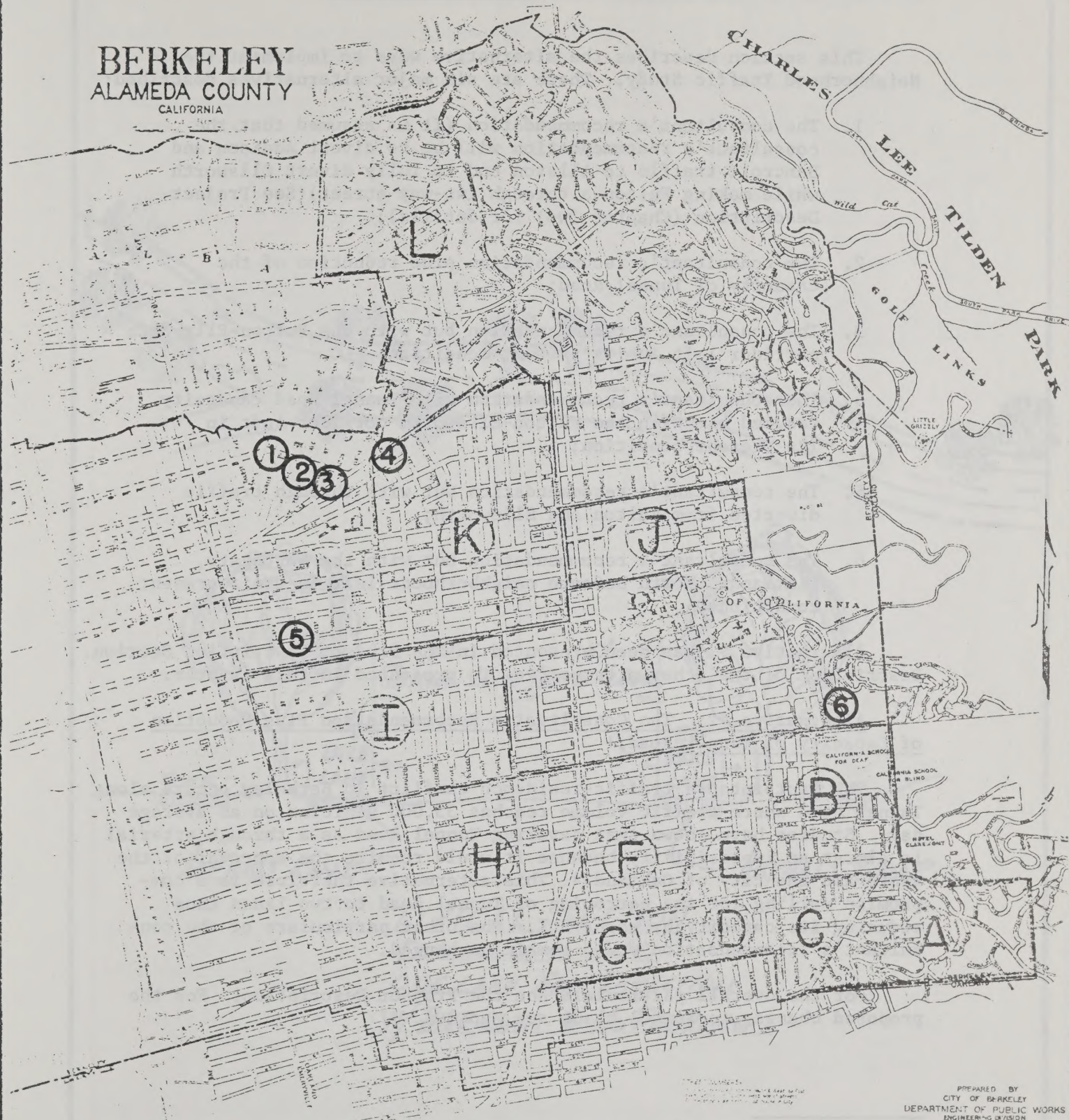
Install diverter with a northwest to southeast orientation to reinforce the transition of Hearst Avenue from a collector east of Sacramento Street to a local street west of Sacramento.

Map Key #6:

Hillside between Prospect and Dwight:

Design and construct a street closure located at the narrow bridge south of Hillside Court.

BERKELEY
ALAMEDA COUNTY
CALIFORNIA



MISCELLANEOUS PROPOSALS

**ENVIRONMENTAL IMPACT REPORT
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MAR 2-14

CHAPTER THREE: MAJOR ALTERNATIVES

This section describes the alternative ways to implement the Neighborhood Traffic Study. There are six major alternatives described:

1. The consultant's recommendation (It is assumed that the consultant's recommendation will be to divert Addison and Bancroft traffic to Allston and to fully divert Ellsworth while making Fulton a through two-way street)(See Project Description (Chapter Two) for details);
2. The consultant's recommendation plus reduction of the capacity of Tunnel Road;
3. The consultant's recommendation but with the Fulton-Ellsworth corridor left in its present condition;
4. The consultant's recommendation with Tunnel Road capacity reduced but with the Fulton-Ellsworth corridor left in its present condition;
5. The consultant's recommendation but with through traffic diverted from Fulton and Ellsworth;
6. The consultant's recommendation but with the Northgate, Flatlands, North LeConte neighborhoods left in their present conditions.

Alternative #1 has been presented in the Project Description Section. Description of the other alternatives is presented in this chapter.

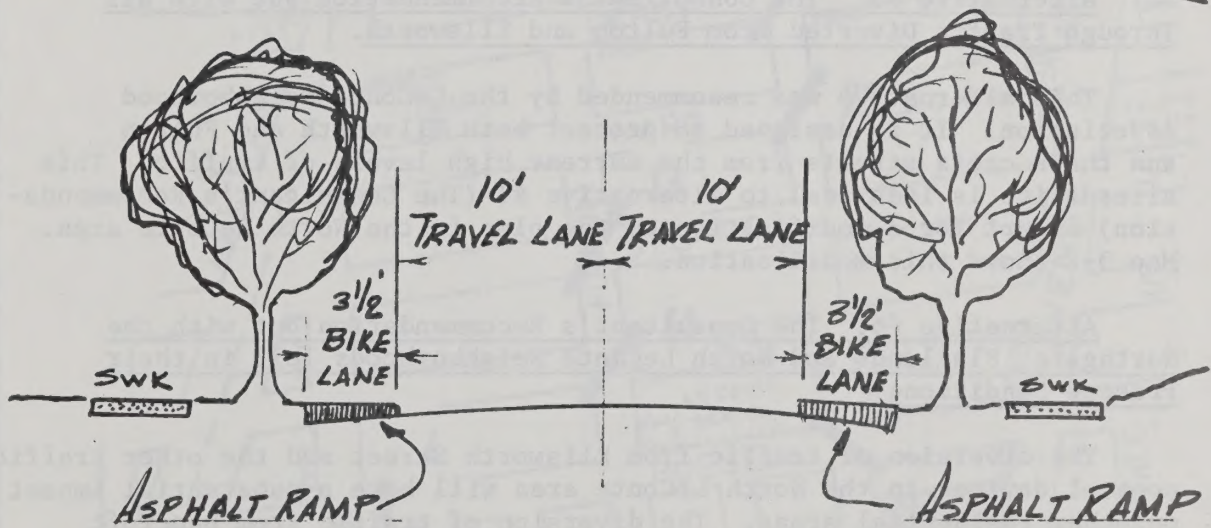
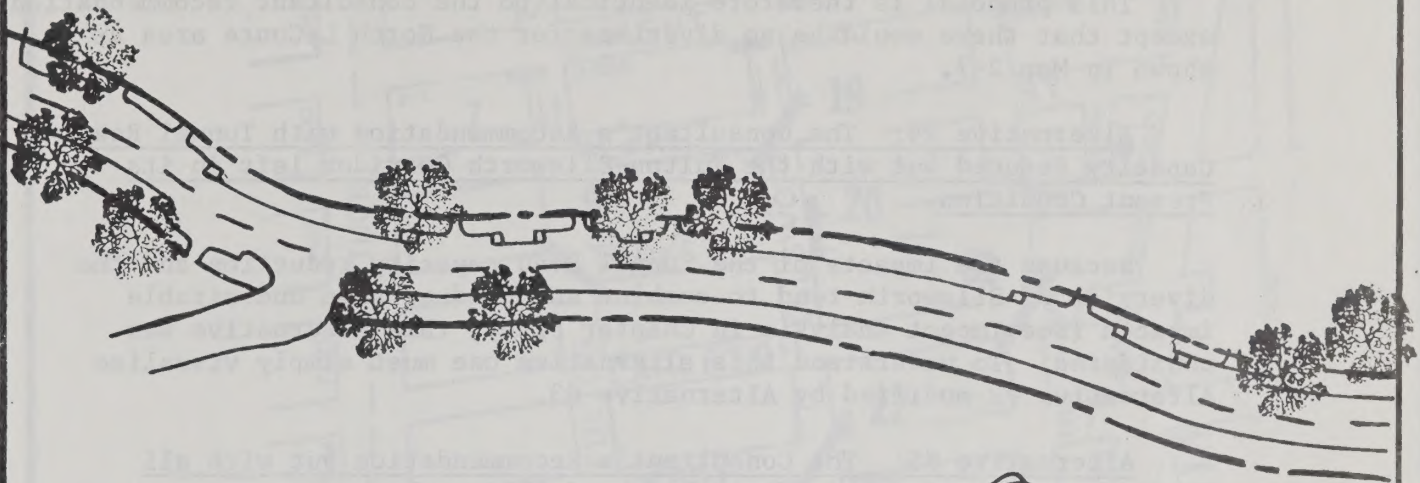
Alternative #2: The Consultant's Recommendation Plus Reduction of Capacity of Tunnel Road.+

The most intense traffic-residence conflict in Berkeley occurs along Tunnel Road where traffic volume reaches 33,000 vehicles on an average day. Studies have shown that severing Tunnel Road as a through arterial is almost an impossibility because it would require the approval of the state and the City of Oakland.* This alternative therefore is a compromise calling for the narrowing of Tunnel Road to two lanes thus reducing its capacity by about 30%. The other particulars of the consultant's recommendation would remain unchanged.

For the overall particulars see the Project Description. For the proposed changes to Tunnel Road, see Map 3-1.

+Further discussion of this is presented in the Final Report-Appendix D

*A description of Alternative #1 (the consultant's recommendation) is presented in the Project Description Section.



TYPICAL SECTION
DOMINGO to ECL
ONE LANE EACH DIRECTION
W/ BIKE LANE & NO PARKING

POSSIBLE TUNNEL ROAD PROJECT

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MAP ³⁻¹

Alternative #3: The Consultant's Recommendation but with the Fulton and Ellsworth Corridor left in its Present Condition.

The diversion of traffic from Ellsworth Street and the other traffic control devices in the Fulton-Ellsworth Corridor will have a substantial impact on other residential areas. In order to avoid these impacts while preserving the other benefits of the consultant's recommendation, the city might wish to consider implementing all recommendations except for those presented for the North LeConte area.

This proposal is therefore identical to the consultant recommendation except that there would be no diverters for the North LeConte area as shown in Map 2-7.

Alternative #4: The Consultant's Recommendation with Tunnel Road Capacity Reduced but with the Fulton-Ellsworth Corridor left in its Present Condition.

Because the impacts of the Tunnel Road capacity reduction and the diversion of Ellsworth tend to combine and produce some undesirable impacts (See Impact Analysis in Chapter Five), this alternative was considered. To understand this alternative one must simply visualize Alternative #2 modified by Alternative #3.

Alternative #5: The Consultant's Recommendation but with all Through Traffic Diverted from Fulton and Ellsworth.

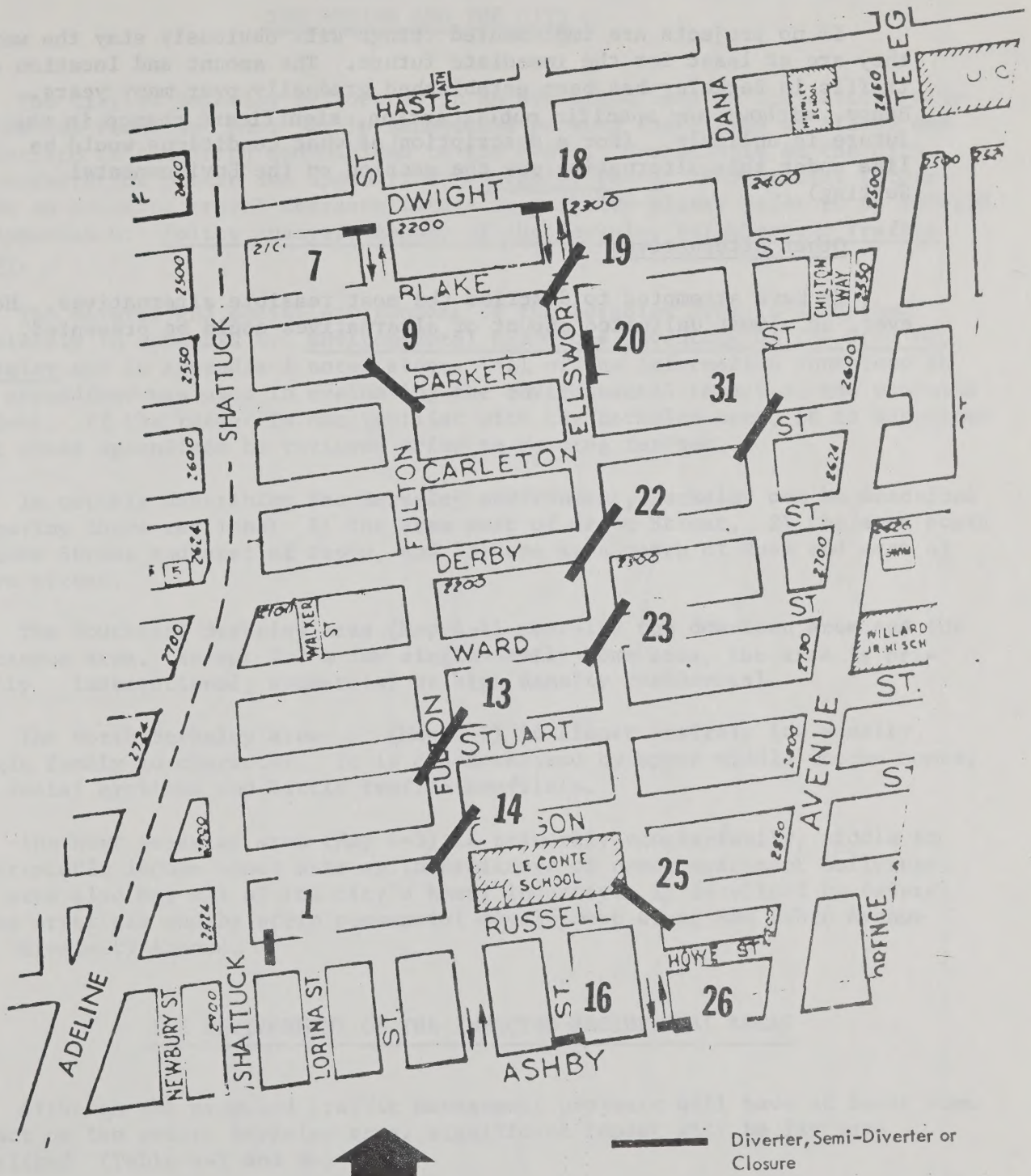
This alternative was recommended by the LeConte Neighborhood Association. It is designed to protect both Ellsworth and Fulton and their cross streets from the current high levels of traffic. This alternative is identical to Alternative #1 (The Consultant's Recommendation) except for a modification of the plan in the North LeConte area. Map 3-2 shows this modification.

Alternative #6: The Consultant's Recommendation but with the Northgate, Flatlands and North LeConte Neighborhoods left in their Present Condition.

The diversion of traffic from Ellsworth Street and the other traffic control devices in the North LeConte area will have a substantial impact on other residential areas. The diversion of traffic from Bancroft and Addison will have a very severe impact on Allston. The traffic control measures in the Northgate area will very adversely impact Euclid.

In order to avoid these impacts while preserving the other benefits of the consultant's recommendations, the city might wish to consider implementing all recommendations except for those presented for the North LeConte, Northgate and Flatlands area (the area bounded by Sacramento, Grove, University and Dwight).

This proposal is therefore identical to the consultant's recommendation except that there would be no diverters for: 1) the North LeConte area as shown in Map 2-7; 2) the Northgate area as shown in Map 2-11; and 3) the Flatlands area east of Sacramento as shown in Map 2-10.



ALTERNATIVE #5 FULTON-ELLSWORTH
TRAFFIC DIVERSION PLAN

ENVIRONMENTAL IMPACT REPORT FOR BERKELEY NEIGHBORHOOD TRAFFIC STUDY

Alternative #7: Status Quo (No Project)

If no projects are implemented things will obviously stay the way they are at least for the immediate future. The amount and location of traffic in Berkeley has been established gradually over many years. Hence, without any specific public action, significant change in the near future is unlikely. (For a description of what conditions would be like under this alternative see the section on the Environmental Setting)

Other Alternatives

We have attempted to describe the most feasible alternatives. However, an almost unlimited amount of alternatives could be presented.

CHAPTER FOUR: ENVIRONMENTAL SETTING

THE REGION AND THE CITY

The City of Berkeley is located in an urbanized area on the eastern side of the San Francisco Bay. It is sandwiched between the cities of Albany and El Cerrito to the North and Oakland to the South. For details on the city characteristics please see Appendix A: Berkeley Facts. For special information on existing travel characteristics in Berkeley please refer to pp 109-120 of Appendix C: Policy Analysis Report of the Berkeley Neighborhood Traffic Study.

The natural and social environment of the Berkeley area is described completely in Appendix B: Environmental Resources Inventory of the City of Berkeley and in Appendix A noted above. All of the information contained in the appendices was used in evaluating the environmental impact of the proposed project. If the reader is not familiar with the Berkeley area, it is suggested that these appendices be reviewed prior to reading further.

In quickly describing the Berkeley environment, Berkeley can be described as having three sections: 1) the area west of Grove Street, 2) the area south of Rose Street and east of Grove, and 3) the area north of Rose and east of Grove street.

The Southeast Berkeley area (Map 4-1) contains the downtown area and the UC campus area. Except for a few single-family home area, the area is primarily institutional, commercial or high density residential.

The North Berkeley area (Map 4-2) is almost entirely low density, single family in character. It is characterized by upper middle income homes, few social problems and little traffic conflicts.

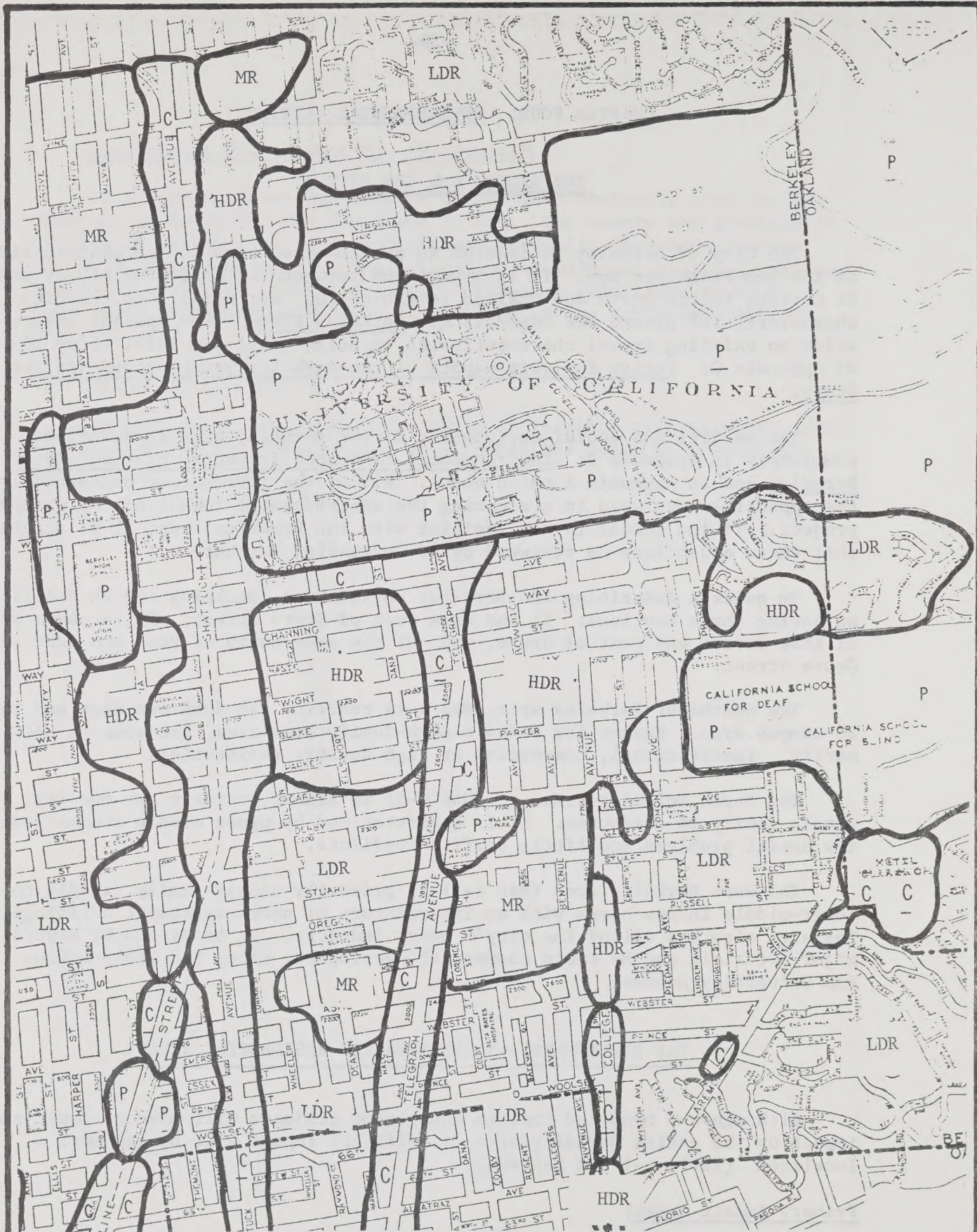
The West Berkeley area (Map 4-3) is primarily single-family, middle to lower-middle income homes with an intermixture of newer apartment buildings. The area also has all of the city's heavy industry. It is sliced by several major arterials and by strip commercial development along San Pablo Avenue and University Avenue.

THE ENVIRONMENT OF THE IMPACTED RESIDENTIAL AREAS

Although the proposed traffic management projects will have at least some impact on the entire Berkeley area, significant impact will be far more localized (Table 4-1 and Map 4-4).

Primary Impact Areas:

The environment of the 12 primary impact areas is described by Tables 4-2, 4-3 and 4-4. For detailed statistics see Appendix F: Technical Supplement.



GENERALIZED LAND USE IN
THE SOUTHEAST BERKELEY AREA

See MAP 4-2 for Key

ENVIRONMENTAL IMPACT REPORT FOR BERKELEY NEIGHBORHOOD TRAFFIC STUDY

MAP

4-1

P = Public
 LDR = Low Density Residential (1 & 2 Family Units)
 HDR = High Density Residential (3 or more Family Units)
 MR = Mixed Residential (High Density Residential Intermeshed with Low Density Residential)
 C = Commercial
 I = Industrial



GENERALIZED LAND USE IN
 THE NORTH BERKELEY AREA

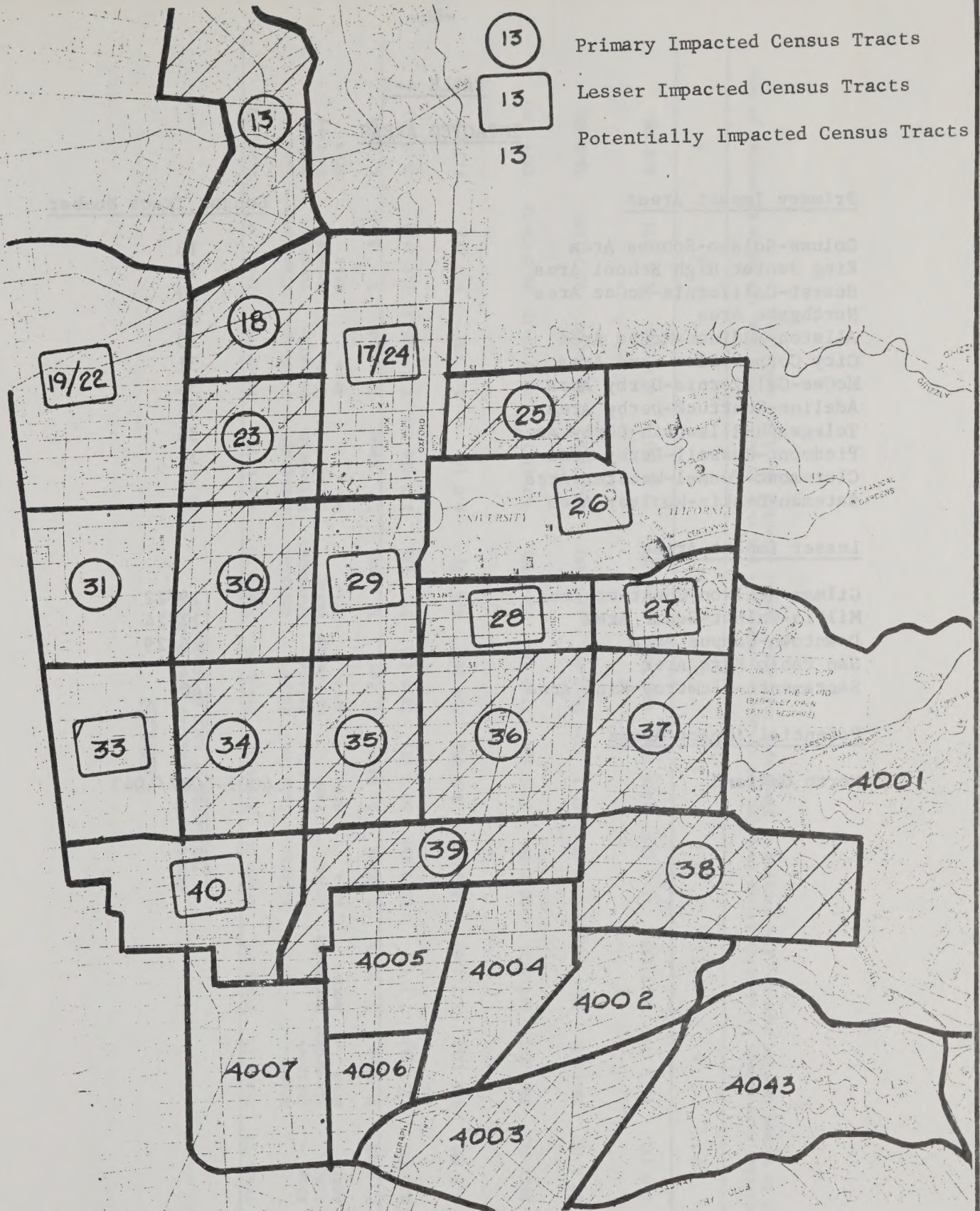
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GENERALIZED LAND USE IN
THE WEST BERKELEY AREA

See MAP 4-2 for Key

ENVIRONMENTAL IMPACT REPORT FOR BERKELEY NEIGHBORHOOD TRAFFIC STUDY



IMPACTED AREAS

ENVIRONMENTAL IMPACT REPORT FOR BERKELEY NEIGHBORHOOD TRAFFIC STUDY

MAP 4-4

TABLE 4-1

IMPACTED AREAS

Primary Impact Areas

Census Tract Number

Colusa-Solano-Sonoma Area	13
King Junior High School Area	18
Hearst-California-McGee Area	23
Northgate Area	25
Allston-Addison-McGee Area	30
City Corporation Yard Area	31
McGee-California-Derby Area	34
Adeline-Shattuck-Derby Area	35
Telegraph-Ellsworth-Derby Area	36
Piedmont-Russell-Derby Area	37
Claremont-Tunnel-Webster Area	38
Bateman-Deakin-Woolsey Area	39

Lesser Impact Areas

Gilman-Neilson-Chestnut Area	19/22
Milvia-Walnut-Cedar Area	17/24
Downtown-Campus Area	26-29
San Pablo Park Area	33
Sacramento-Alcatraz-King Area	40

Potential Impact Areas

North Oakland	4001-4007/4043
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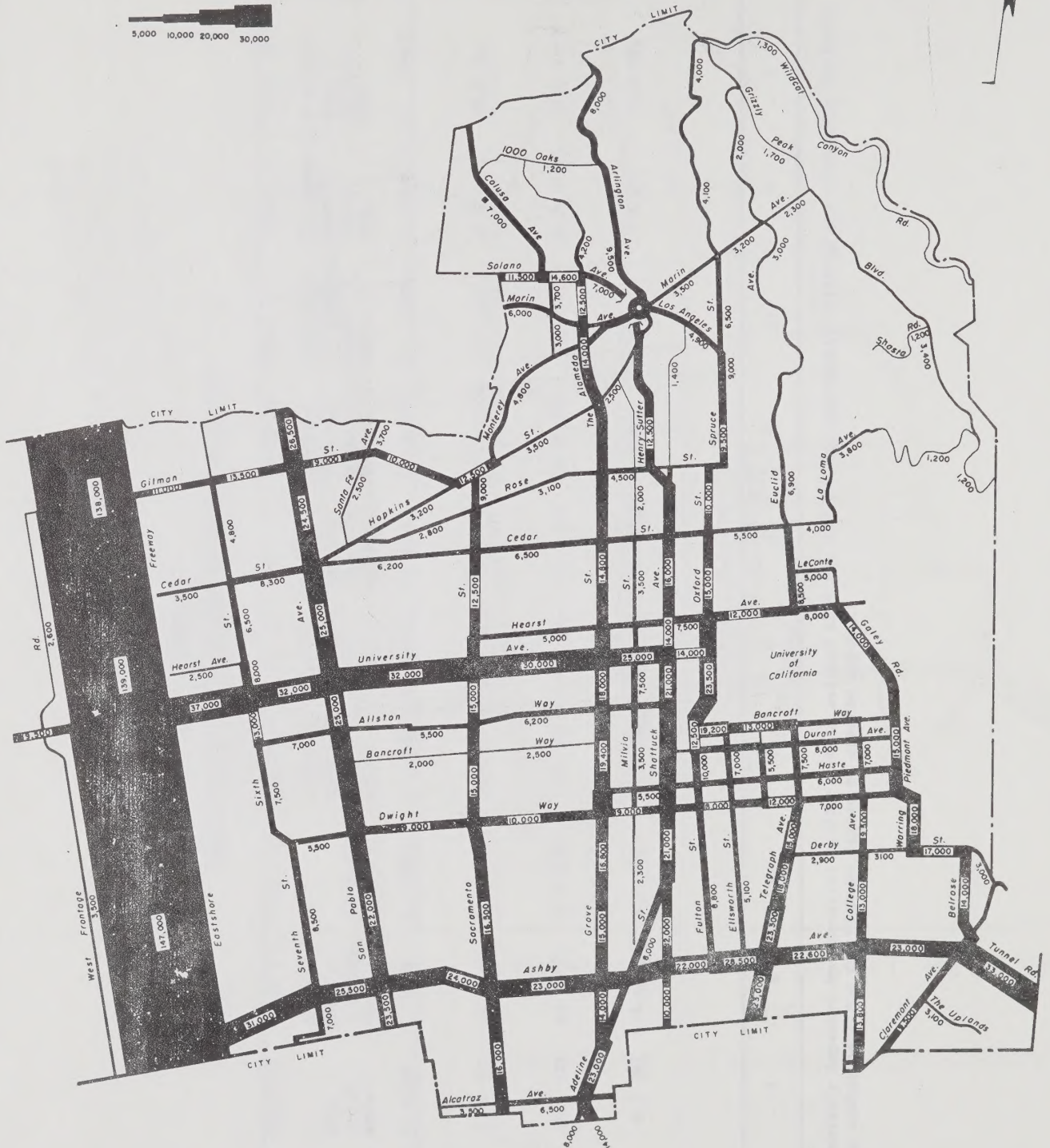
TABLE 4-2

COMPARISON OF PRIMARY IMPACT AREAS
INDICATORS OF LACK OF MOBILITY*

	Tract 13	Tract 18	Tract 23	Tract 25	Tract 30	Tract 31	Tract 34	Tract 35	Tract 36	Tract 37	Tract 38	Tract 39
	Colusa-Solano-Sonoma Area	King J.H.S. Area	Hearst-California-McGee Area	Northgate Area	Allston-Addison-McGee Area	City Corporation Yard Area	McGee-California-Derby Area	Adeline-Shattuck-Derby Area	Telegraph-Ellsworth-Derby Area	Piedmont-Russell-Derby Area	Claremont-Tunnel-Webster Area	Bateman-Deakin-Woolsey Area
	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank
% Black	3.1 (8)	6.1 (7)	11.7 (6)	2.7 (9)	20.9 (5)	50.3 (2)	78.8 (1)	29.5 (3)	1.7 (10-11)	1.7 (10-11)	1.1 (12)	24.8 (4)
% People over 75	9.7 (1)	6.7 (6)	4.6 (11)	4.7 (10)	8.3 (3)	8.0 (4)	3.4 (12)	6.4 (7)	6.0 (8)	5.4 (9)	8.4 (2)	7.3 (5)
% Households with Children under 18	24.7 (5)	26.1 (4)	20.7 (7)	4.7 (12)	20.2 (9)	23.7 (6)	27.5 (1)	20.6 (8)	9.1 (11)	26.5 (2-3)	26.5 (2-3)	18.1 (10)
% High School Graduates	79.9 (7)	88.3 (8)	78.1 (6)	91.9 (11)	67.4 (3)	60.1 (2)	54.3 (1)	74.3 (4)	89.6 (9)	94.2 (12)	91.1 (10)	76.8 (5)
% Families Below Poverty Level	4.1 (11)	8.0 (9)	10.5 (7)	11.7 (5)	15.4 (2)	12.6 (4)	15.5 (1)	13.9 (3)	11.4 (6)	6.3 (10)	1.3 (12)	9.9 (8)
Average Rank	6	7	8	12	3	2	1	4	11	10	9	5

* These selected characteristics were chosen to identify groups that for one reason or another are not able to easily move from one house to another or one area to another in order to escape traffic impacts. (The ranking is based upon the lowest number equaling the least mobility.)

CITY OF BERKELEY, CALIFORNIA
TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS



BERKELEY

1972

24 HOUR TRAFFIC VOLUMES

ENVIRONMENTAL IMPACT REPORT
FOR
BERKELEY NEIGHBORHOOD TRAFFIC
STUDY

4-5

MAP

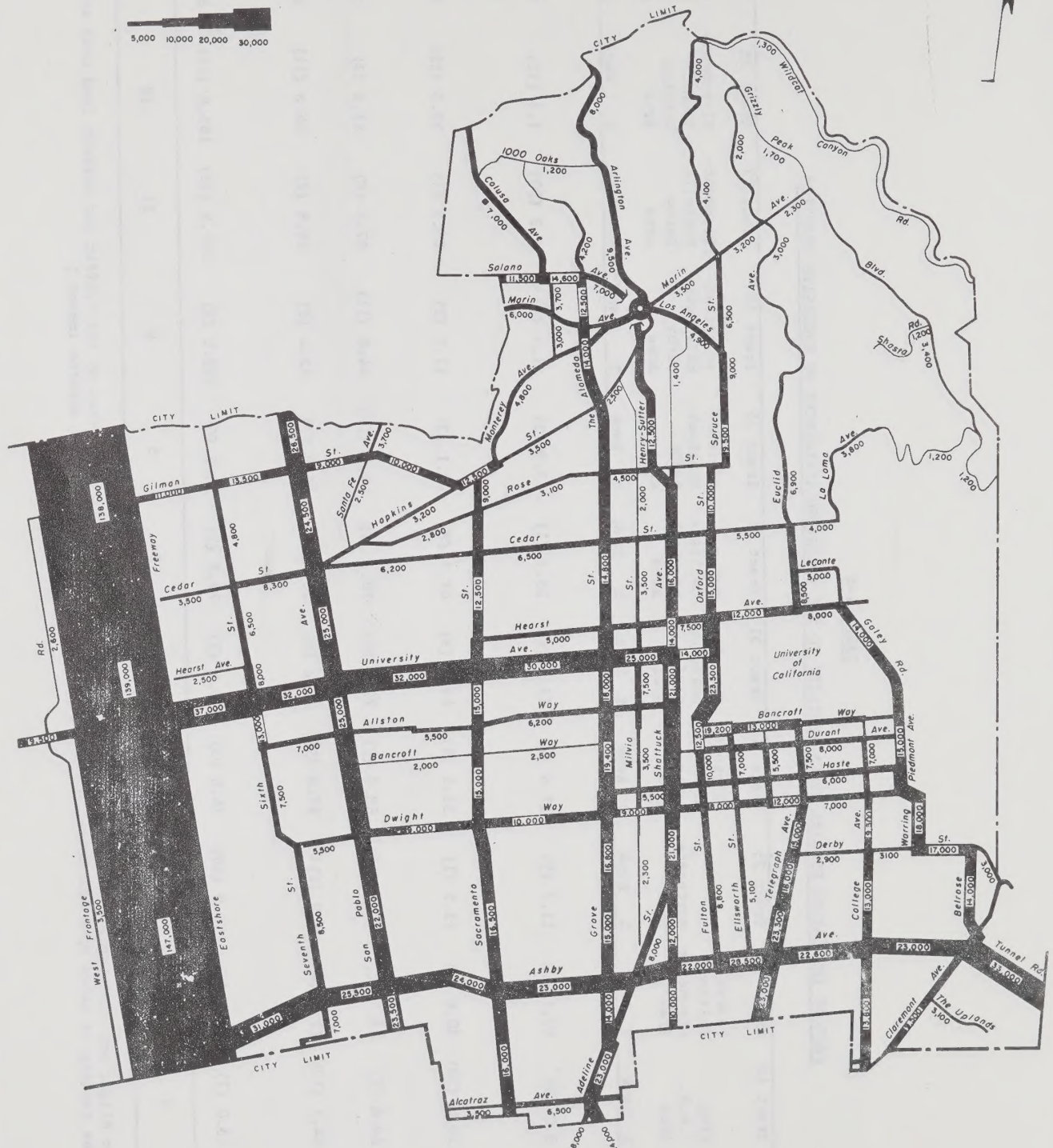
TABLE 4-4

FACTORS INDICATING SPECIAL SUSCEPTIBILITY TO THE BLIGHTING INFLUENCES OF EXCESSIVE TRAFFIC*

	Tract 13	Tract 18	Tract 23	Tract 25	Tract 30	Tract 31	Tract 34	Tract 35	Tract 36	Tract 37	Tract 38	Tract 39	
	Colusa-Solano Area	King J.H.S. Area	Hearst-California-McGee Area	Northgate Area	Allston-Addison-McGee Area	City Corporation Yard Area	McGee-California-Derby Area	Adeline-Shattuck-Derby Area	Telegraph-Ellsworth-Derby Area	Piedmont-Russell-Derby Area	Claremont-Tunnel-Webster Area	Bateman-Deakin-Woolsey Area	City-Wide
	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank	% Rank
% Families Below Poverty Level	4.1 (11)	8.0 (9)	10.5 (7)	11.7 (5)	15.4 (2)	12.6 (4)	15.5 (1)	13.9 (3)	11.4 (6)	6.3 (10)	1.3 (12)	9.9 (8)	10.5
% of People Who Lived in Same House, 1965-1970	57.2 (11)	52.0 (10)	30.6 (4)	13.5 (1)	33.5 (5)	49.8 (9)	47.9 (8)	28.1 (3)	17.3 (2)	39.5 (7)	57.3 (12)	36.6 (6)	38.0
% of Housing Units in 4-unit or Smaller Bldg.	92.1 (1)	89.8 (2)	63.5 (8)	32.8 (12)	68.9 (7)	72.9 (6)	78.2 (4)	46.8 (10)	44.8 (11)	57.1 (9)	87.2 (3)	73.8 (5)	64.0
% of Owner Occupancy	77.6 (12)	54.1 (10)	25.6 (4)	9.9 (1)	27.8 (5)	35.2 (8)	36.2 (9)	15.8 (3)	12.4 (2)	29.6 (7)	64.8 (11)	28.2 (6)	34.9
Median Value of Houses as Percent of City Median Value	104.5 (8)	88.0 (7)	80.8 (4)	154.9 (10)	74.8 (3)	68.4 (1)	70.7 (2)	86.5 (6)	108.6 (9)	166.5 (12)	165.8 (11)	85.3 (5)	0.0
Average Rank	10	9	4	6	1	5	2	3	8	11	12	7	

*Excessive traffic tends to blight and disintegrate residential areas. Existing problems are made worse by the traffic, and certain land uses are more adversely affected than others. (The ranking is based upon the lowest number equalling the highest degree of adverse impact.)

CITY OF BERKELEY, CALIFORNIA
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BERKELEY

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24 HOUR TRAFFIC VOLUMES

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FOR
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4-5

MAP

THE ENVIRONMENT OF THE IMPACTED RESIDENTIAL AREAS (CONTINUED)

Secondary and Potential Impact Areas:

A detailed description of the secondary and potential impact areas is not presented here. However, specific characteristics of the environments of these areas are discussed as part of appropriate discussions in the impact assessment section.

THE ENVIRONMENT OF THE IMPACTED COMMERCIAL AREAS

Over 50% of the commercial establishments in Berkeley are located in the Central Business District or one of six sub-area commercial districts. A description of these districts is presented in Tables 4-5 and 4-6 and they are located on Map 4-6.

The rest of the Berkeley commercial areas consist of small neighborhood shopping areas or strip commercial development. Locations of these areas are presented in Maps 4-7 and 4-8.

IMPACTED MAJOR STREETS

Major streets serve two primary purposes: 1) serve as paths for transporting people and goods, 2) serve as a place of residence.

In regard to their purpose as a residential environment, the characteristic of main concern to a traffic related EIR is the effect of traffic on the residents. A detailed study was made of existing noise, air pollution, traffic congestion, accidents and traffic volumes on these residential streets. (The details are contained in Appendix F: Technical Supplement.) A summary of the findings regarding the livability of these streets is presented in Tables 4-7 and 4-8.

Major streets are also important for serving as transportation links within the city and to outside areas. In addition to the need to move regular traffic they facilitate the provision of community services (buses, school buses, emergency services, etc.) An analysis of the adequacy of the major streets to carry traffic is presented in Table 4-9.

TABLE 4-5

DISTRIBUTION OF SELECTED BUSINESS CATEGORIES BY COMMERCIAL AREA
AS OF 2/28/74

COMMERCIAL AREA	<u>R E T A I L</u>		<u>T R A D E</u>		<u>S E R V I C E S</u>	
	NUMBER OF OUTLETS	PERCENT	NUMBER OF EMPLOYEES	PERCENT	NUMBER OF OUTLETS	PERCENT
CBD	203	33.3	1226	41.5	216	46.3
Sather Gate	173	28.4	800	27.0	46	9.8
University - San Pablo	62	10.2	201	6.8	52	11.1
Solano	65	10.6	252	8.5	41	8.8
Elmwood	42	6.9	141	4.8	34	7.3
Adeline - Alcatraz	25	4.1	59	2.0	50	10.7
North Shattuck	40	6.5	278	9.4	28	6.0
TOTAL	610	100.0	2957	100.0	467	100.0
TOTAL - BERKELEY ^{1/}	1053					

^{1/} State Board of Equalization, 3rd Quarter 1973

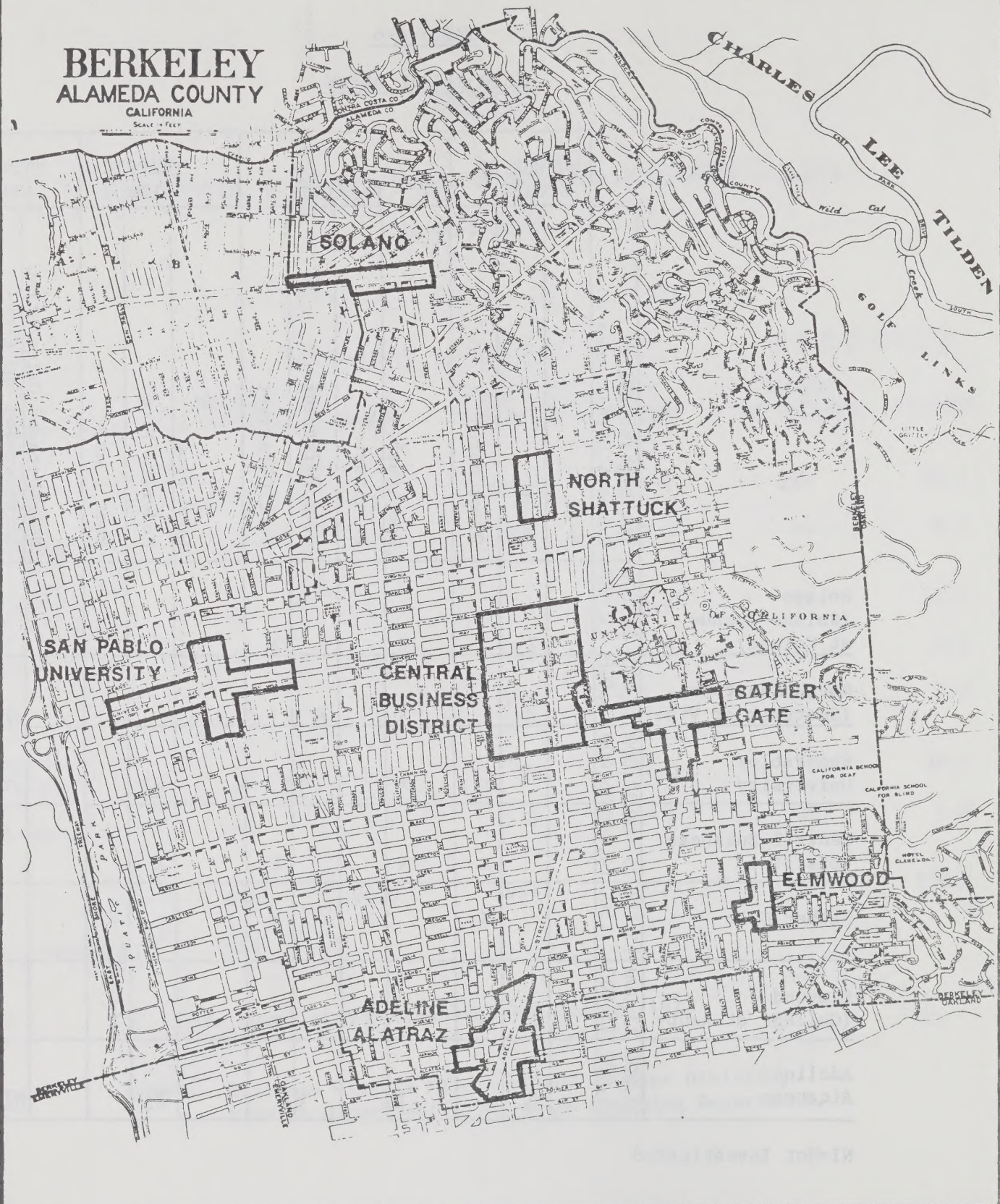
SOURCE: Business License File, Tax and License Division,
Finance Department. Berkeley Planning Department.

TABLE 4-6

MAJOR RETAIL AREAS

		NUMBER OF STORES			PARKING				TRAFFIC FLOW			TYPE OF USES			
		Two Highest ADT on Streets Within Area	5-24	25-99	99 or More	Good Curb	Poor Curb	Good Offstreet	Poor Offstreet	Good Flow	Moderate Flow	Poor Flow	Neighborhood Orientation	Neighborhood and City-Wide Orientation	City-Wide Orientation
Solano (Solano Avenue at Colusa)	14,600 14,500		X			X			X		X			X	
North Shattuck (Shattuck at Vine)	16,000 4,500		X			X		X		X				X	
San Pablo/ University	32,000 25,000				X	X		<u>NI</u>		<u>NI</u>				X	
Central Business District	25,000 14,000				X	X			X		X				X
Sather Gate	13,000 7,500				X		X		X			X			X
Elmwood (College at Ashby)	23,000 13,800		X				X		X			X		X	
Adeline/ Alcatraz	23,000 15,000		X			<u>NI</u>		<u>NI</u>		<u>NI</u>			<u>NI</u>	<u>NI</u>	<u>NI</u>

NI=Not Investigated



MAJOR COMMERCIAL AREAS

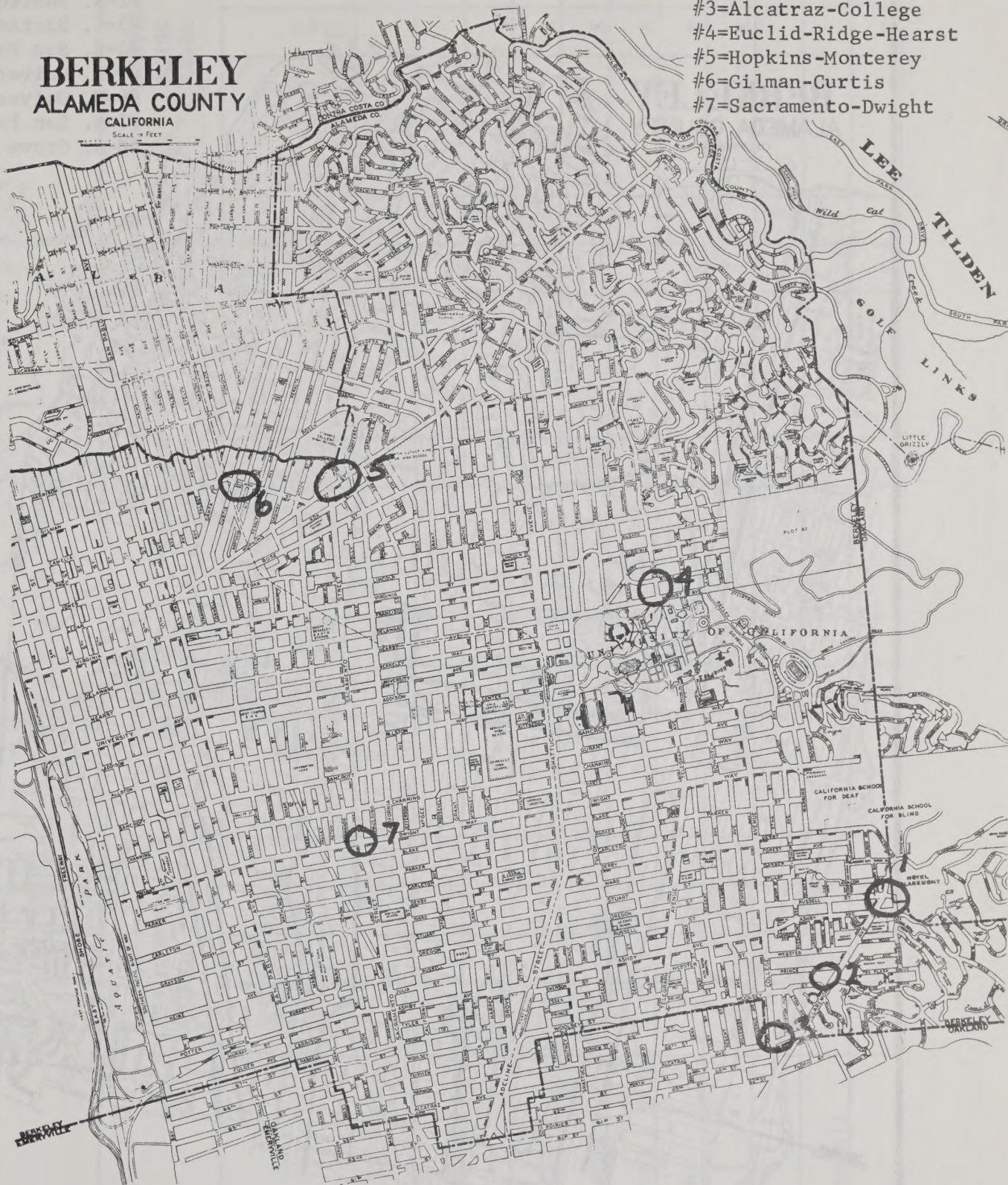
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MAP 4-6

BERKELEY ALAMEDA COUNTY CALIFORNIA

SCALE IN FEET

- #1=Ashby-Domingo-Claremont
- #2=Claremont-Prince-Woolsey
- #3=Alcatraz-College
- #4=Euclid-Ridge-Hearst
- #5=Hopkins-Monterey
- #6=Gilman-Curtis
- #7=Sacramento-Dwight



NEIGHBORHOOD SHOPPING AREAS

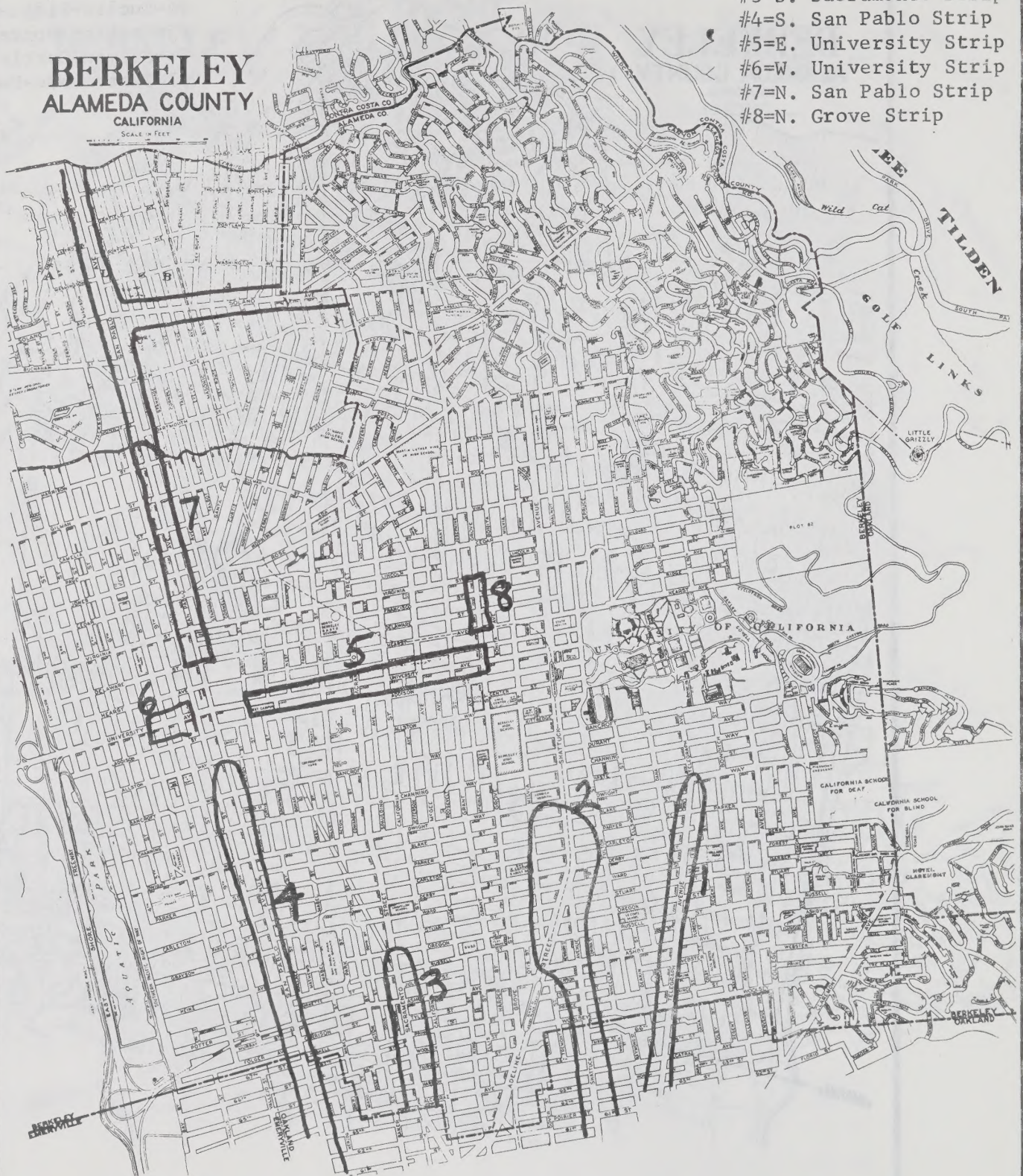
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MAP MAP 4-7

- #1=Telegraph Strip
- #2=S. Shattuck Strip
- #3=S. Sacramento Strip
- #4=S. San Pablo Strip
- #5=E. University Strip
- #6=W. University Strip
- #7=N. San Pablo Strip
- #8=N. Grove Strip

BERKELEY ALAMEDA COUNTY CALIFORNIA

SCALE IN FEET



STRIP COMMERCIAL SHOPPING AREAS

ENVIRONMENTAL IMPACT REPORT **FOR** **BERKELEY NEIGHBORHOOD TRAFFIC** **STUDY**

MAP 4-8

TABLE 4-7

RESIDENTIAL ENVIRONMENT OF MAJOR STREETS

	24 HOUR TRAFFIC VOLUME				STREET RIGHT OF WAY WIDTH			ACCIDENT RECORD		LEVEL OF TRAFFIC CONGESTION			TRAFFIC NOISE LEVEL		
	9,000- 9,999	10,000- 19,999	20,000- 29,999	30,000 +	50-65	65-100	Over 100	High	Moderate or Low	High	Moderate	Low	Severe	High	Moderate
Tunnel Road				X	X				X	X			X		
Piedmont Avenue (Dwight to Bancroft)		X				X			X		X				
Claremont Avenue	X					X		X				X		X	
Ashby Avenue (Telegraph to Tunnel)			X			X			X	X				X	
Ashby Avenue (Fulton to Telegraph)			X			X			X	X				X	
Ashby Avenue (Shattuck to Fulton)			X			X			X	X				X	
Ashby Avenue (Fulton to Seventh)			X		X			X			X			X	
College Avenue (Alcatraz to Derby)		X			X			X		X				X	
College Avenue (Derby to Durant)	X				X			X			X				X
Henry-Sutter (Rose to Solano Tunnel)		X					X		X			X			X
Grove Street (Ashby to Dwight)		X				X			X		X			X	

TABLE 4-7 (Continued)

RESIDENTIAL ENVIRONMENT OF MAJOR STREETS

	24 HOUR TRAFFIC VOLUME				STREET RIGHT OF WAY WIDTH			ACCIDENT RECORD		LEVEL OF TRAFFIC CONGESTION			TRAFFIC NOISE LEVEL		
	9,000- 9,999	10,000- 19,999	20,000- 29,999	30,000 +	50-65	65-100	Over 100	High	Moderate or Low	High	Moderate	Low	Severe	High	Moderate
Grove Street (Hearst to Yolo)		X			X				X	X				X	
Oxford Street (Cedar to Hearst)		X			X				X	X				X	
Gilman Street (San Pablo to Hopkins)	X				X				X		X				X
Ellsworth Street (Ashby to Durant)	X				X				X			X			X
Fulton Street (Ashby to Durant)	X				X				X		X			X	
Dwight Way (Telegraph to Shattuck)	X				X				X		X				X
Dwight Way (Telegraph to Piedmont)	X				X				X			X			X
Haste Street (Grove to Piedmont)	X				X			X			X				X
Dwight Way (San Pablo to Shattuck)	X				X				X	X					X
Colusa Avenue (City border to Solano)	X				X				X			X			X
Allston Way (San Pablo to Grove)	X				X			X				X			X
Sacramento Street (Ashby to Dwight)		X					X		X			X		X	

RESIDENTIAL ENVIRONMENT OF MAJOR STREETS

	24 HOUR TRAFFIC VOLUME					STREET RIGHT OF WAY WIDTH			ACCIDENT RECORD	LEVEL OF TRAFFIC CONGESTION			TRAFFIC NOISE LEVEL					
(NT= Not Tabulated)	9,000- 9,999	10,000- 19,999	20,000 29,999	30,000 +		50-65	65-100	Over 100		High Moderate or Low		High	Moderate	Low		Severe	High	Moderate
Sacramento Street (Dwight to University)		X						X		X				X				X
Claremont Boulevard- Belrose Avenue		X					X			X		X					X	
Derby Street (Warring to Belrose)		X					X			X				X			X	
Warring Street (Derby to Dwight)		X				X				X				X			X	
Santa Fe Avenue (Hopkins to City limit)	X					X				X				X			X	
Hopkins Street (Rose to The Alameda)	X						X			X				X			X	
Cedar Street (San Pablo To Euclid)	X					X				X		X					X	
Hearst Avenue (Sacramento to Grove)	X					X				X				X			X	
Hearst Avenue (Oxford to Euclid)		X				X				X			X				X	
Bancroft Way (San Pablo to Grove)	X					X				NT				X			X	
Alcatraz Avenue (Shattuck to College)	X					X				X				X			X	
Le Conte Avenue (Euclid to La Loma)	X					X				X				X			X	
Virginia Street (Euclid to Oxford)	X					X				NT				X			X	
Grove Street (Ashby to Grove-Shafter)		X					X			NT				X			X	

TABLE 4-8

IMPACT OF EXISTING TRAFFIC ON RESIDENTIAL LANDS USES ALONG MAJOR STREETS

Extreme Impact

Tunnel Road

Very High Impact

Ashby Avenue (Full Length)
College Avenue (Alcatraz to Derby)
Grove (Hearst to Yolo)
Oxford (Cedar to Hearst)

High Impact

Claremont Avenue
College (Derby to Durant)
Grove (Ashby to Durant)
Gilman (San Pablo to Hopkins)
Fulton (Ashby to Durant)
Dwight (Telegraph to Shattuck)
Haste (Grove to Piedmont)
Dwight (San Pablo to Shattuck)
Allston (San Pablo to Grove)
Claremont Boulevard-Belrose Avenue
Derby (Warring to Belrose)
Warring (Derby to Dwight)

Moderate Impact

Henry-Sutter (Rose to Solano Tunnel)
Ellsworth (Ashby to Durant)
Dwight (Telegraph to Piedmont)
Colusa (City border to Solano)
Sacramento (Ashby to University)

TABLE 4-9

MAJOR STREETS - EXISTING ENVIRONMENT FOR VEHICULAR USERS

	24 HOUR TRAFFIC VOLUME					STREET RIGHT OF WAY WIDTH			ACCIDENT RECORD	LEVEL OF TRAFFIC CONGESTION			TRAFFIC NOISE LEVEL			TRANSIT ROUTE	DESIG- NATED FIRE ROUTE		SCHOOL BUS ROUTE		PREDOMINANT LAND USE			DESIGNATED STREET ON GENERAL PLAN		
	9,000- 9,999	10,000- 19,999	20,000- 29,999	30,000 +	50-65	65-100	Over 100	High Moderate or Low		High	Moderate	Low	Severe	High	Moderate		Yes	No	Yes	No	Yes	No	Residential	Commercial	Other	Major
Tunnel Road				X	X			X	X			X				X	X		X		X			X		
Piedmont Avenue (Dwight to Bancroft)		X				X		X		X			X			X	X		X		X				X	
Claremont Avenue	X					X		X			X		X		X		X		X		X				X	
Ashby Avenue (Telegraph to Tunnel)			X			X		X	X				X		X		X		X		X			X		
Ashby Avenue (Fulton to Telegraph)			X			X		X	X				X		X		X		X		X			X		
Ashby Avenue (Shattuck to Fulton)			X			X		X	X				X		X		X		X		X			X		
Ashby Avenue (Fulton to Seventh)			X		X		X			X			X		X		X		X		X			X		
Telegraph Avenue (Ashby to Alcatraz)			X				X	X	X				X		X		X		X			X		X		
Telegraph Avenue (Ashby to Dwight)		X					X	X	X					X	X		X		X			X		X		
Telegraph Avenue (Dwight to Bancroft)	X				X			X		X				X	X		X			X		X		X		
College Avenue (Alcatraz to Derby)		X			X			X		X			X		X		X		X		X			X		
College Avenue (Derby to Durant)	X				X			X			X			X	X		X			X				X		
Henry-Sutter (Rose to Solano Tunnel)		X					X	X			X			X	X		X		X		X			X		

TABLE 4-9 (Continued)

MAJOR STREETS - EXISTING ENVIRONMENT FOR VEHICULAR USERS

	24 HOUR TRAFFIC VOLUME					STREET RIGHT OF WAY WIDTH			ACCIDENT RECORD	LEVEL OF TRAFFIC CONGESTION			TRAFFIC NOISE LEVEL			TRANSIT ROUTE		DESIG-NATED FIRE ROUTE		SCHOOL BUS ROUTE		PREDOMINANT LAND USE			DESIGNATED STREET ON GENERAL PLAN		
	9,000-9,999	10,000-19,999	20,000-29,999	30,000+		50-65	65-100	Over 100		High	Moderate	Low	Severe	High	Moderate	Yes	No	Yes	No	Yes	No	Residential	Commercial	Other	Major	Collector	No
Grove Street (Ashby to Dwight)	X					X			X		X			X		X		X		X		X			X		
Grove Street (Dwight to University)	X					X			X	X				X		X		X		X				X	X		
Grove Street (Hearst to Yolo)	X					X			X	X				X		X		X		X		X			X		
Adeline Street (Alcatraz to Grove)		X					X	X				X			X	X		X		X			X			X	
Adeline Street (Grove to Shattuck)	X						X		X			X			X	X		X		X			X			X	
Sacramento Street (Alcatraz to Ashby)		X					X		X		X				X	X		X		X			X		X		
University Avenue (San Pablo to Grove)				X			X		X	(1) X	(2) X			X		X		X		X			X		X		
Oxford Street (Cedar to Hearst)		X				X			X	X				X		X		X		X		X			X		
Gilman Street (San Pablo to Hopkins)	X					X			X		X				X		X		X		X		X		X		
Ellsworth Street (Ashby to Durant)	X					X			X			X			X		X		X		X		X				X
Fulton Street (Ashby to Durant)	X					X			X		X			X			X		X		X		X			X	
Dwight Way (Telegraph to Shattuck)	X					X			X		X				X	X		X		X		X			X		

(1) San Pablo to Sacramento

(2) Sacramento to Grove

TABLE 4-9 (Continued)

MAJOR STREETS - EXISTING ENVIRONMENT FOR VEHICULAR USERS

	24 HOUR TRAFFIC VOLUME					STREET RIGHT OF WAY WIDTH			ACCIDENT RECORD	LEVEL OF TRAFFIC CONGESTION			TRAFFIC NOISE LEVEL			TRANSIT ROUTE	DESIGNATED FIRE ROUTE		SCHOOL BUS ROUTE		PREDOMINANT LAND USE			DESIGNATED STREET ON GENERAL PLAN					
	9,000-9,999	10,000-19,999	20,000-29,999	30,000 +		50-65	65-100	Over 100		High	Moderate or Low	High	Moderate	Low	Severe		High	Moderate	Yes	No	Yes	No	Yes	No	Residential	Commercial	Other	Major	Collector
Dwight Way (Telegraph to Piedmont)	X					X				X			X			X	X		X		X		X				X		
Haste Street (Grove to Piedmont)	X					X			X			X				X	X		X		X		X				X		
Durant Avenue (Fulton to Piedmont)	X						X		X			X				X	X		X		X		Mixed				X		
Dwight Way (San Pablo to Shattuck)	X					X			X		X					X	X		X		X		X				X		
Shattuck Avenue (Ashby to Adeline)		X				X			X		X					X	X		X		X			X			X		
Shattuck Avenue (Adeline to University)			X					X	X			X				X	X		X		X			X			X		
Shattuck Avenue (Hearst to Rose)		X						X		X		X				X	X		X		X			X			X		
Solano Avenue (The Alameda to Neilson)		X					X			X		X				X	X		X		X			X				X	
Colusa Avenue (City border to Solano)	X					X				X			X			X	X		X		X		X					X	
Allston Way (San Pablo to Grove)	X					X			X				X			X		X		X		X		X					X
Sacramento Street (Ashby to Dwight)		X						X		X			X		X		X		X		X		X				X		
Sacramento Street (Dwight to University)		X						X		X			X			X	X		X		X		X				X		
San Pablo Avenue (Full Length)			X					X	(3) X		(1) X	X (2)			X		X		X		X			X			X		
Claremont Boulevard- Belrose Avenue		X					X			X		X			X		X		X		X		X					X	
Derby Street (Warring to Belrose)		X					X			X			X			X		X		X		X						X	
Warring Street (Derby to Dwight)		X				X				X			X			X			X		X		X					X	
(1) Allston north (2) Ashby to Derby (3) University to Dwight																													

CHAPTER FIVE: IMPACT ANALYSIS

IMPACT OF ALTERNATIVE #1 (The Consultant's Recommendations)*

TRAFFIC VOLUME CHANGES

The significant impacts caused by implementation of the Neighborhood Traffic Study all stem from traffic volume changes on different streets. Complete diversion or de-emphasis of existing travel routes will force traffic to find new locations. Traffic increases are caused by: 1) forcing traffic away from neighborhoods onto major streets; 2) forcing traffic from one established route to another. Traffic decreases are caused by: 1) diverters on existing routes that no longer allow through access; and 2) traffic reductions on links to routes that are no longer usable.

Map 5-1 portrays projected traffic volume changes.

IMPACT ON ENVIRONMENTAL SYSTEMS (Reversible and irreversible Environmental changes involving hydrologic, atmospheric, geologic-pedologic, biotic, and visual resources)

Irreversible Changes

The physical aspect of the project consists of the construction of concrete and wood barricades which will prevent vehicles from proceeding in their normal travel path. Natural resources (trees, minerals) will be used to construct the barricades. However, the total natural resource usage in the materials and energy used to produce the 74 diverters will be less than that used in constructing a small single-family home. No other irreversible environmental changes are involved since the diverters are designed to be movable and removable. Even after full implementation of the project, all diverters could be removed and traffic would for all intents and purposes revert to its original characteristics.

Impact on the Natural Environment

The project will have no impact on hydrologic, geologic, soil or biotic resources.

Visual Impact

The diverters will be important visual elements in the environment. An attempt has been made to make them as attractive as road barricades can be while retaining their mobility. (See pictures and discussion of the barricades in Appendix D: Final Report of the Berkeley Neighborhood Traffic Study.) Another visual factor to be considered is the tendency of road closure structures to serve as attractors of people as congregation areas. The result can be increased litter and possible vandalism of the structures themselves.

*See Project Description-Chapter Two for details of Consultant's Recommendations.

IMPACT ON RESIDENTIAL AREAS

In protecting purely residential streets from through traffic, almost all areas of the city will experience increases of traffic on the major streets (streets with over 3000 average daily traff). In almost all areas, this increase is negligible (less than 10%). However, this alternative will result in significant increases in major street traffic in Census Tract 37 (The piedmont-Russel-Derby Area) and Census Tract 35 (the Adeline-Shattuck-Derby Area). Both will experience increases of over 10%.

The increase of traffic on major streets in the Piedmont-Russell-Derby Area is directly attributable to the diversion of Russell, Derby and Piedmont Avenue. Thus, the internal neighborhoods in this area benefit from the increases on the major streets.

In the case of the Adeline-Shattuck-Derby area (Tract 35), the increase in traffic on major streets is due less to internal neighborhood traffic shifts than to the general shifting of traffic from east to west caused by street diversions in the Telegraph-Ellsworth-Derby Area(Tract 36) and the Piedmont-Russell-Derby Area (Tract 37). The Census Tract 35 is ill-equipped to accept this traffic. In measuring existing traffic level, percentage of old people, children, and immobile groups of people, this area is one of the areas of the city most vulnerable to the environmental disruptions of increased traffic. (See statistics on residential area characteristics in Chapter Four for documentation.)

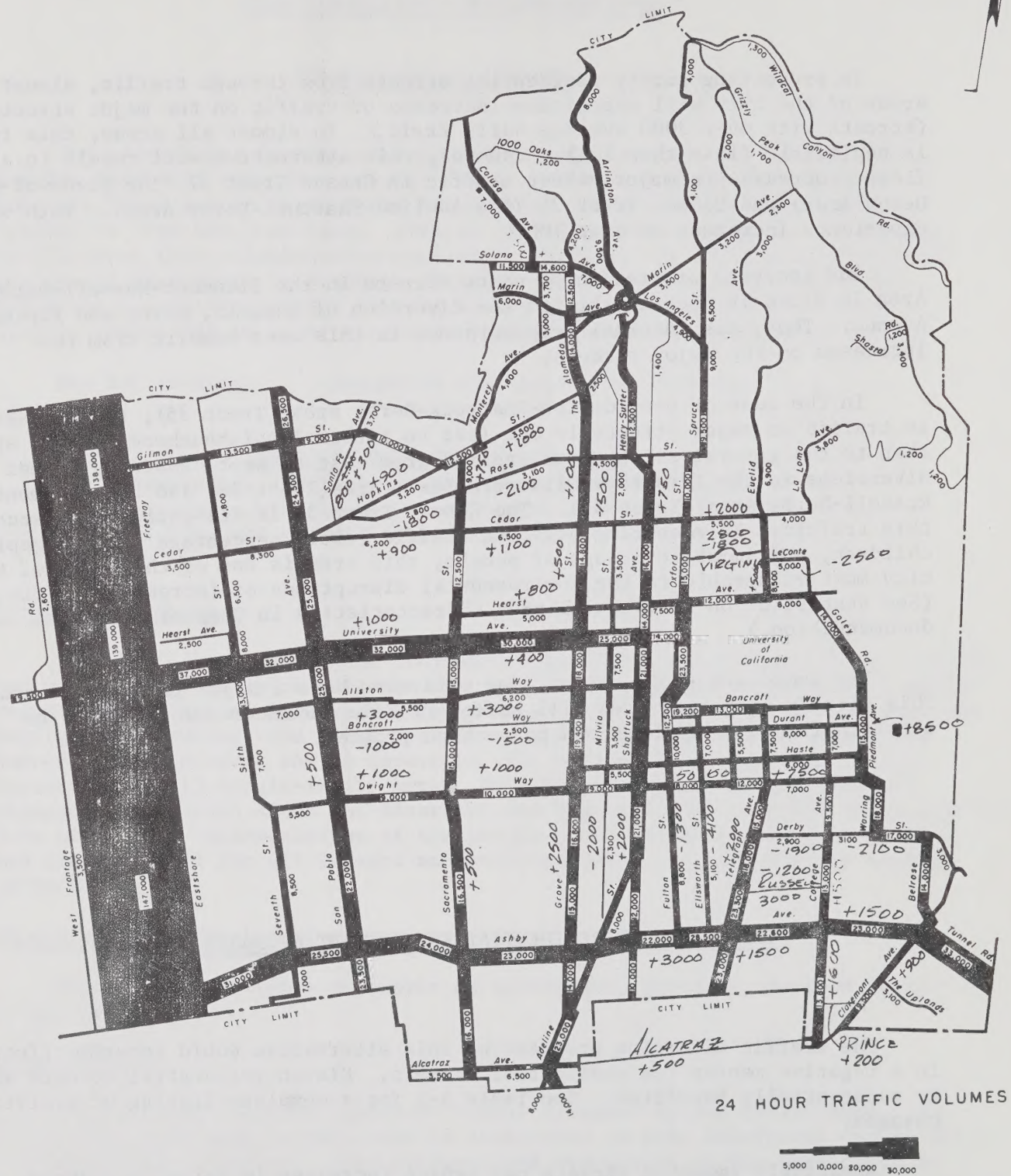
The immediate south campus area will also have a major increase in traffic. This already congested area will suffer traffic increases but will get no benefits from the neighborhood protection program.

IMPACT ON THE RESIDENTIAL ENVIRONMENT OF MAJOR STREETS

The traffic diversion proposed by this alternative would severely affect in a negative manner ten residential streets. Eleven residential streets would be substantially benefited. See Table 5-2 for a complete listing of traffic changes.

Negatively impacted streets can expect increases in noise, accidents, congestion, air pollution, and all of the other unpleasant and harmful by-products of vehicular usage. Benefited streets will obviously expect decreases in noise, accidents, congestion, air pollution, etc.

CITY OF BERKELEY, CALIFORNIA
TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS



ALTERNATIVE #1
PROJECTED TRAFFIC VOLUME CHANGES

ENVIRONMENTAL IMPACT REPORT
FOR
BERKELEY NEIGHBORHOOD TRAFFIC
STUDY

IMPACT ON ENVIRONMENTAL SYSTEMS (CONTINUED)

Impact on Air Quality

The San Francisco Bay Basin is classified by the State Air Resources Board as a region having a "critical" air pollution problem. The criteria used for this classification was the ability to meet national standards by 1975. Of the total emissions in the Region, over 50% of the hydrocarbons, approximately 70% of the nitrogen oxides and upwards of 90% of the carbon monoxide (CO) emissions are generated by motor vehicles.

Although the City of Berkeley has relatively high air quality compared to other cities in the Bay Area Air Pollution Control District, state ambient air quality standards have been exceeded for most pollutants enough times to indicate that a problem exists at certain times of the year.

4300 tons/day of CO was emitted by motor vehicles in the Bay Area in 1972. Based upon studies of vehicle miles traveled and rates of speed, the total amount of CO emitted in Berkeley was estimated to currently be 8.75 tons/day or 0.20% of the Bay Area total. Making adjustments for reduced speed and assuming the worst possible impacts from any alternative for the Neighborhood Traffic Management Plan, it is estimated that a maximum of 10.02 tons/day would be emitted or 0.23% of the Bay Area total. The increased CO emitted (1.27 tons/day) under these worst case conditions would thus contribute insignificantly (0.03%) to existing CO emissions in the Bay Area.

It is possible, however, for CO concentrations on specific streets to exceed acceptable standards. To see if any of the proposals might lead to such concentrations, calculation of projected CO levels were made for the worst possible cases. The results of tests of these assumptions are depicted in Table 5-1. It is apparent that no street would experience unacceptable levels of CO concentration due to implementation of any of the alternatives.

In summary, air quality in the Bay Area will not be significantly impacted by the Neighborhood Traffic Management Plans. Air quality in Berkeley will not be significantly impacted by the plans, except that there might be some very slight increases in pollution on days when very little mixing of air and pollutants occurs in the Bay Area. Air quality on specific Berkeley streets will not be significantly impacted by the proposals.

TABLE 5-1

PROJECTED WORST POSSIBLE CONCENTRATIONS OF CARBON MONOXIDE
UNDER ANY OF THE ALTERNATIVES
 (Computed for Peak Hour)

<u>Street</u>	<u>Background (natural & motor vehicle)</u>	<u>Attributable to Street</u>	<u>Total Existing</u>	<u>Increase</u>	<u>Total Proposed*</u>	<u>Percent Increase</u>
Tunnel Rd.	5-10ppm.	3.43ppm.	8.5-13.5ppm.	0.58ppm.	9-14ppm.	4 - 6%
College Ave.	5-10ppm.	1.24ppm.	6.2-11.2ppm.	0.55ppm.	6.8-11.8ppm.	5 - 10%
Grove St.	5-10ppm.	0.83ppm.	5.8-10.8ppm.	0.41ppm.	6.2-11.2ppm.	4 - 7%
Ellsworth St.	5-10ppm.	0.03ppm.	5-10ppm.	-0.113ppm.	4.9-9.9ppm.	-1 - 2%

*The Federal standard for maximum CO concentration is 35ppm. for one hour.

TABLE 5-2

IMPACT OF ALTERNATIVE #1 ON THE ENVIRONMENT OF MAJOR STREETS

Major Streets Having 30% or More Decrease in Traffic

Milvia (Dwight to Ashby)	87%
Ellsworth (Ashby to Dwight)	80%
Milvia (Cedar to Rose)	75%
Derby (Telegraph to Warring)	67%
Rose (San Pablo to Grove)	66%
Virginia (Oxford to Euclid)	64%
Bancroft (Grove to San Pablo)	56%
Le Conte	50%
Russell (Telegraph to College)	40%

Major Streets Having 10-29% Decrease in Traffic

Cedar (San Pablo to Grove)	28%
Fulton (Ashby to Dwight)	14%

Major Streets Having 30% or More Increase in Traffic

Haste (Telegraph to Piedmont)	67%
Euclid (Cedar to Hearst)	59%
Dwight (Telegraph to Piedmont)	57%
Allston (Grove to San Pablo)	52%
Haste (Shattuck to Telegraph)	42%
Santa Fe	38%
Cedar (Shattuck to Euclid)	36%
Dwight (Shattuck to Telegraph)	31%

Major Streets Having 20-29% Increase in Traffic

Hopkins (San Pablo to The Alameda)	28%
College (Derby to Dwight)	26%
Grove (Dwight to Ashby)	22%

Major Streets Having 10-19% Increase in Traffic

College (Ashby to Derby)	19%
Shattuck (Ashby to Adeline)	17%
Hearst (Sacramento to Grove)	16%
Ashby (Telegraph to Shattuck)	12%
Claremont-Belrose-Derby-Warring-Piedmont (Ashby to Haste)	12%
College (Ashby to Alcatraz)	12%
Dwight (San Pablo to Shattuck)	11%
Telegraph (Ashby to Dwight)	11%

NOISE IMPACT

Because traffic will be shifted from one area to another, noise levels will rise and fall accordingly. Generally, the level of noise will increase or decrease in proportion to the traffic increase or decrease specified for streets calculated for this alternative in the previous section. Where traffic levels have increased or decreased significantly there will be noticeable noise level changes.

In order to locate major noise level changes resulting from this project, the study made use of the U. S. Department of Housing and Urban Development's "Noise Assessment Guidelines". These guidelines enabled the investigator to determine the "acceptability" of noise levels at different sites. HUD established four categories of acceptability which takes into account the effects on most people of noise in relation to their sense of well-being, ability to sleep, carry on conversations, and concentrate. The categories were based on decible equivalents over a period of time. See attached Table 5-3 for acceptability categories.

Using the HUD Methodology, the noise impact of traffic diversions was determined. (See Appendix G: Technical Supplement for information used in making noise change determinations.) The result for this alternative is that noise level changes from automobile traffic diversions will not be an important consideration. However, significant truck and bus noise level reduction on a number of streets can be expected. (See attached Table 5-4 for specifics.)

NEIGHBORHOOD ACCESSIBILITY

To prevent through traffic the consultants have recommended placing diverters on many neighborhood streets. These diverters, however, also make travel of residents, their guests and service vehicles more difficult. The ten most diverted neighborhoods are shown in Table 5-5. Decreased accessibility means increased travel time to residents, increased travel distances on neighborhood streets by residents, and a reduction in privacy of movement. Neighbors for better or worse will be much more aware of where fellow neighbors and other neighborhood users are coming from and going to. Guests may become confused and frustrated as is typical of locating homes on the curvilinear street patterns of suburban cities. Essential services and emergency vehicles may also become confused.

The increased travel distances and amount of turns a motorist must make within a neighborhood was calculated by selecting especially diverter affected locations within neighborhoods. Distance and turning movements were then calculated for the present conditions and for the diverted conditions. (See technical supplement for further details.)

Three neighborhoods stand out as having accessibility made substantially worse. These are the Uplands area (see project description for location of these neighborhood areas), the LeConte area (south of Ashby), and the Bateman area. (The South LeConte area plus the Bateman area together comprise Census Tract 39.)

TABLE 5-3

HUD'S ACCEPTABILITY CATEGORIES FOR PROPOSED HOUSING SITES

Clearly Acceptable:

The noise exposure is such that both the indoor and outdoor environments are pleasant.

Normally Acceptable:

The noise exposure is great enough to be of some concern but common building constructions will make the indoor environment acceptable, even for sleeping quarters, and the outdoor environment will be reasonably pleasant for recreation and play.

Normally Unacceptable:

The noise exposure is significantly more severe so that unusual and costly building constructions are necessary to ensure some tranquility indoors, and barriers must be erected between the site and prominent noise sources to make the outdoor environment tolerable.

Clearly Unacceptable:

The noise exposure at the site is so severe that the construction costs to make the indoor environment acceptable would be prohibitive, and the outdoor environment would still be intolerable.

TABLE 5-4

ALTERNATIVE #1 NOISE IMPACTS ON MAJOR RESIDENTIAL STREETS

Streets on Which the Noise Level From Automobile Traffic Will be Reduced
From Normally Acceptable to Clearly Acceptable

Ellsworth (Ashby to Dwight)
Le Conte

Streets on Which the Noise Level From Truck and Bus Traffic Will be Reduced
From Normally Unacceptable to Normally Acceptable

Milvia (Dwight to Ashby)
Milvia (Cedar to Rose)
Ellsworth (Ashby to Dwight)
Derby (Telegraph to Warring)
Rose (San Pablo to Warring)
Virginia (Oxford to Euclid)
Bancroft (Grove to San Pablo)
Russell (Telegraph to College)

Streets on Which the Noise Level From Truck and Bus Traffic Will be Increased
From Normally Unacceptable to Clearly Unacceptable

Dwight (Shattuck to Telegraph)

Streets on Which the Noise Level From Automobile Traffic Will be Increased
From one Noise Acceptability Category to Another

None

TABLE 5-5

ALTERNATIVE #1 NEIGHBORHOOD ACCESSIBILITY

Ten Most Diverted Neighborhoods - Amount of Decreased Accessibility to
Neighborhood Areas in Rough Order

	<u>Percent Increase In Turning Movements</u>	<u>Percent Increase In Distance Traveled</u>
Uplands*	86%	87%
Le Conte (south of Ashby)	70%	43%
Bateman	77%	26%
Northgate	67%	21%
Flatlands-SUDS	80%	2%
Ashby-C Claremont-College Triangle	43%	36%
Le Conte (north of Ashby)	56%	21%
Emerson	62%	14%
Cow Hollow-North Berkeley	52%	17%
Willard Park	36%	20%

*See project description (Chapter 2) for location of these neighborhood areas.

NEIGHBORHOOD ACCESSIBILITY (CONTINUED)

The reader can review the locations of diverters in these and the other seven highly impacted neighborhoods in the project description (Chapter Two) in order to easily see the cause of disruptions.

TRAFFIC CONGESTION

Diversion of traffic from one major street to another and from neighborhoods to major streets will seriously congest several Berkeley streets. Congestion will be concentrated at intersections. Five intersections deemed most vulnerable to traffic impacts of the traffic management program were selected for detailed analysis. These five intersections are:

Ashby at Claremont
Ashby at College
Ashby at Telegraph
Ashby at Grove
Euclid at Hearst

A detailed congestion analysis was made of each approach to these intersections. (This study is presented in full in the technical supplement.) The investigation sought to determine how congested different roadway sections were. For our purposes a high degree of congestion simply means the point where delays to vehicles approaching intersections may be substantial during short peaks within the peak period (usually the rush hour) but where excessive traffic backup can usually be avoided.* At this highly congested level of traffic service, vehicles will stack up at intersections, vehicles will attempt to use neighborhoods to avoid intersections, and vehicles will seek completely different travel routes. Some people will adjust their commute hours and this will result in a lengthening of the peak period. Some people may give up travel or switch to another mode of travel such as public transit.

We have confined our investigation to five critical intersections. This is not to suggest that congestion is currently or will be in the future limited to these intersections. These intersections are simply those most likely to be affected by the traffic management program.

Table 5-6 indicates the changes in traffic congestion at these selected intersections resulting from the implementation of alternative #1.

*This definition of congestion corresponds to Level of Service D as defined in the 1965 Highway Capacity Manual of the Highway Research Board.

TABLE 5-6

TRAFFIC CONGESTION CAUSED BY ALTERNATIVE #1

Highly Congested Roadways to Which a Substantial Amount of Additional Traffic Will be Added

Ashby westbound at College (AM)
Euclid southbound at Hearst (AM)

Roadways Which Will Become Highly Congested due to the Expected Increase in Traffic

Euclid southbound at Hearst (PM)

Roadways Where Traffic Increases Will Result in a Level of Traffic Service Approaching a High Degree of Congestion

Ashby eastbound at Claremont (PM)
Claremont southbound at Ashby (AM & PM)
College northbound at Ashby (with parking removed) (AM) *
College southbound at Ashby (with parking removed) (PM) *
Ashby eastbound at Telegraph (PM)
Telegraph southbound at Ashby (PM)

*Note: The congestion analysis was performed simply for the intersection. Actually, the parking and unparking of cars along College in this area creates a very high degree of congestion.

IMPACT ON COMMERCIAL AREAS

The most severely affected commercial area will be the Euclid Avenue stores near Hearst. This narrow street of stores presently experiences severe traffic congestion and parking difficulty. Increasing the traffic by 59% and severely curtailing traffic circulation in the surrounding area can be expected to have a very adverse impact on the quality of the commercial environment.

Also significantly impacted will be the Elmwood and Sather Gate shopping areas. With a 19% traffic increase on College and a 7% increase on Ashby, this already traffic congested commercial area will be made worse. The Sather Gate area will be affected at the south end where a 60% increase of traffic on Dwight and Haste will further disrupt the pedestrian movement up and down the Avenue.

IMPACT ON SERVICE AND EMERGENCY VEHICLES

Use of barriers or traffic diverters throughout a wide area poses problems for service and emergency vehicles, public transit and school transportation buses, street maintenance, refuse collection and delivery vehicles, as well as fire, police and ambulance services.

Deliveries

For regularly routed vehicles--milk deliveries, postal services, refuse collection, and the like--routes can be adjusted to operate in an efficient and continuous pattern on the "new" street configuration without great inconvenience. The only type of control which would significantly increase inefficiency would be creation of cul-de-sacs which force delivery vehicles to backtrack over previously covered streets. However, the use of cul-de-sacs in the alternative neighborhood schemes has been extremely limited, so this should not be a great problem. For non-regular, unrouted deliveries (such as delivery of a large household appliance) the diverter schemes pose more of a problem by presenting a confusing street pattern to drivers unfamiliar with the arrangement of diverters in each neighborhood.

School Buses

Another regularly routed service for which diverters pose problems is Berkeley Unified School District transportation services. The school buses tend to operate a large percentage of their total mileage on neighborhood streets in order to pick up and discharge children close to home and away from busy major streets. Thus, plans which bar passage through the neighborhoods create some difficulties. Where diverters do conflict with existing routes, in many cases routes and/or loading points can be shifted slightly to enable continuance of the service under the same conditions of efficiency, convenience and safety. However, some diverters or combinations of diverters might force route changes which would seriously affect operating efficiency;

IMPACT ON SERVICE AND EMERGENCY VEHICLES (CONTINUED)

others may affect the ability to service a street or neighborhood at all and force location of the load points to major or collector streets. Where such problems have been identified they have been taken into account in the diverter design or noted as drawbacks in the neighborhood plan discussions. Most problems of this nature could be resolved if the critical diverters could be made passable for buses. Routing the bus the "wrong-way" (wrong side of the street) around a semi-diverter would not be acceptable. Use of raised traffic bars as a diverter of themselves or protecting the gap in a diverter would be undesirable from a school transportation standpoint as the bars cause an excessive amount of bouncing and bumping when run over by the buses. (See Map 5-2)

Public Transit

The only direct conflict between public (AC) transit vehicles and diverters included on the alternative neighborhood plans is on Tacoma Street in the Thousand Oaks area. It is important that the 67 Line continue to operate on this street not so much to avoid traffic congestion on Solano Avenue as to continue to provide services within reasonable walking distances of households along The Alameda and areas to the east which currently have access to the stop at The Alameda and Tacoma via Yosemite Steps. Special arrangements for continued bus passage through the area are detailed in the neighborhood plan discussions in the Final Report (Appendix D). The most significant conflict between the diverter plan alternatives and AC Transit services is an indirect one--the diverters tend to force more traffic onto the already congested major and collector streets where transit operates. The additional traffic will create further congestion thus slowing transit operations unless transit priority treatments, traffic operational improvements or overall traffic reductions can be brought about. (See Map 5-3)

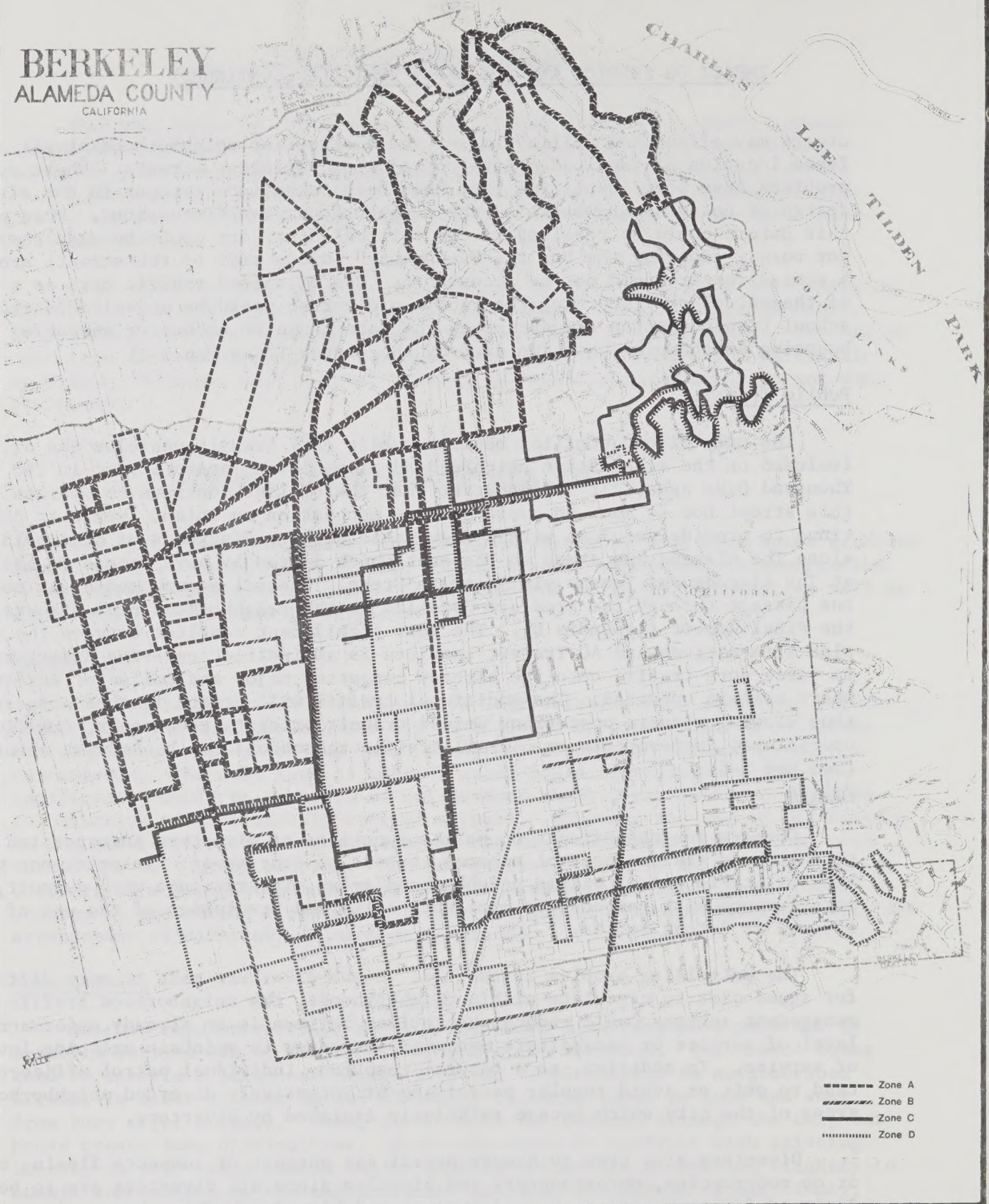
Police

Concern for the effects on police functions of diverters incorporated in the neighborhood traffic control schemes centers on four areas: interference with the ability to patrol within neighborhood areas, interference with pursuit, interference with response to emergency calls and preclusion of the use of certain streets as detour routes.

The patrolling problem is twofold. Since diverters make it more difficult for squad cars to circulate within neighborhoods, the neighborhood traffic management schemes would reduce what police believe is an already undermanned level of service or necessitate manpower increases to maintain existing levels of service. In addition, as a natural reaction, individual patrol officers would tend to omit or avoid regular patrolling of intensively diverted neighborhoods or areas of the city which became relatively isolated by diverters.

Diverters also tend to hamper patrol car pursuit of suspects fleeing on foot or on motorcycles, motorscooters and bicycles since all diverters are to be designed for easy passage by pedestrians and bicycles. This obstruction to enforcement could conceivably adversely affect overall crime rates, particularly in intensively diverted neighborhoods. The concept of diverters with gaps or movable sections which would allow passage of police, emergency and some service vehicles, thereby resolving many of the problems noted here, is discussed in detail in the section on neighborhood traffic control device design in Appendix D (Final Report). Semi-diverters which police vehicles could routinely go around would generally not obstruct police pursuit function.

BERKELEY
ALAMEDA COUNTY
CALIFORNIA



----- Zone A
----- Zone B
----- Zone C
----- Zone D

Berkeley School District
Bus Routes

ENVIRONMENTAL IMPACT REPORT
FOR
BERKELEY NEIGHBORHOOD TRAFFIC
STUDY

MAP 5-2



AC TRANSIT ROUTES IN BERKELEY

ENVIRONMENTAL IMPACT REPORT FOR BERKELEY NEIGHBORHOOD TRAFFIC STUDY

MAP 5-3

IMPACT ON SERVICE AND EMERGENCY VEHICLES (CONTINUED)

Use of large numbers of diverters in the City as a whole or intensively in one or several adjoining neighborhoods would also adversely affect police response to emergency calls. This is not only because of the actual physical barriers that diverters present--they would force police vehicles to less direct routes on the congested designated circulation system--but also because of their effect in complicating the street pattern. That is, because of the maze situation which diverters create, the individual officer would have difficulty in instantly selecting a good route to respond to an emergency call. These same concerns hold for ambulance operation. Use of open-gap or opening diverters as well as semi-diverters would help alleviate this problem but if large numbers of diverters, some traversable, some absolute barriers, are employed, officers will have a difficult time remembering which streets are passable and which are not.

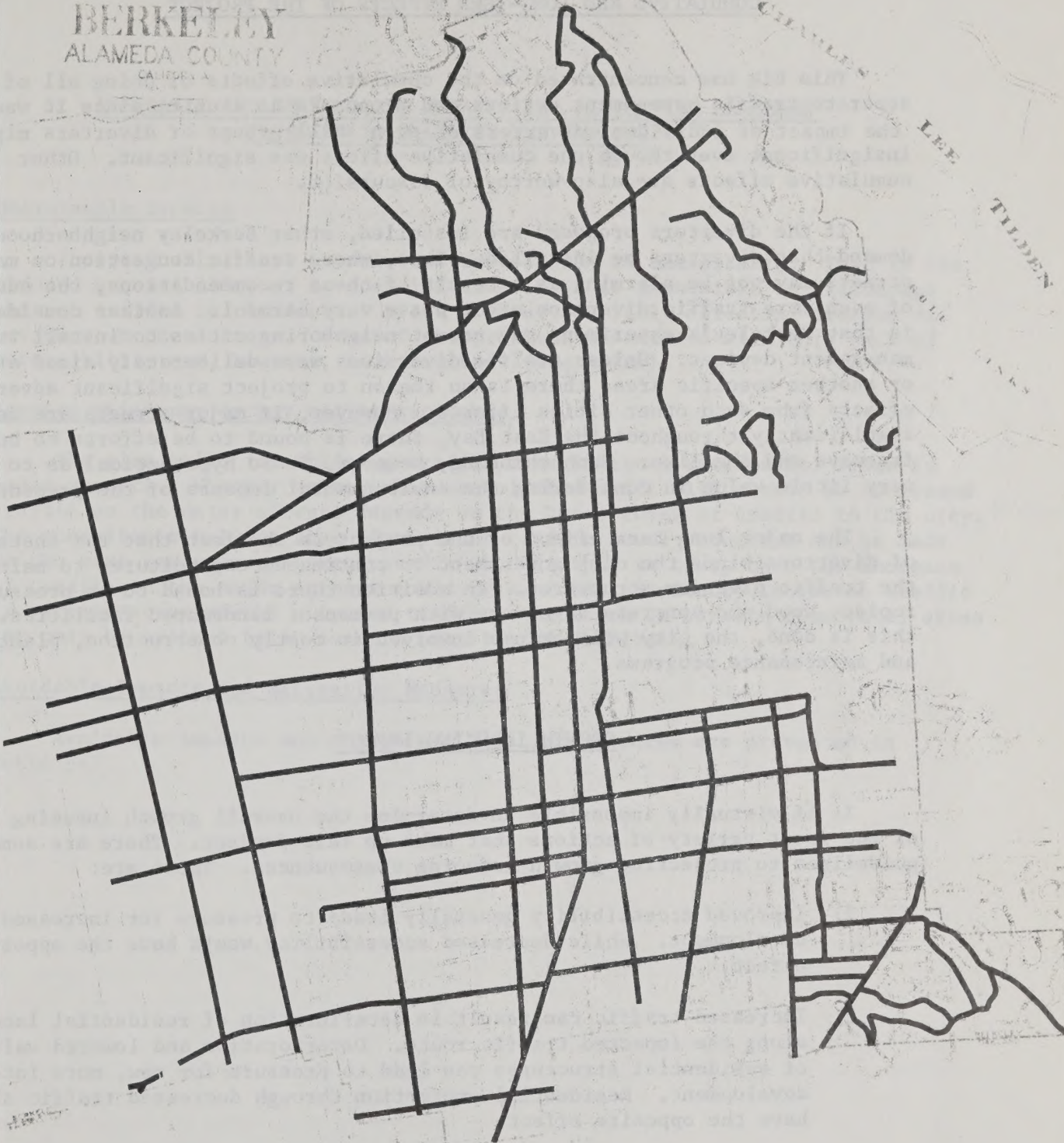
The ability to use streets paralleling major routes as a detour in cases of major route blockage due to fires, construction activity or for special events traffic is a police concern. Although instances of complete blockage of four-lane streets are relatively infrequent, many of the streets on the designated circulation system are only two-lane and extremely susceptible to blockage by emergency vehicles or construction equipment. The inability to use diverted streets as detour routes is a negative factor which must be accepted if diverter plans, particularly the more intensive ones, are to be employed. The bollard-rail design proposed for early installation is somewhat of a mitigating factor in that it could be disassembled in a short time to allow passage.

Fire

Concerns for the impact of diverter plans on fire vehicle operations roughly parallel the concerns for emergency police and ambulance responses. The diverter plans tend to force fire vehicles to less direct routes and confine them to the less congested streets of the designated circulation system. Figure 54 presents designated fire routes from the Berkeley Fire Department Training Manual. While the fire routes indicated in the department's training manual are by and large the streets of the designated circulation system, because of the current congestion on the streets, parallel local streets are frequently used.

The possibility of driver failure to select the most appropriate response route as a result of the complex street maze which would be created by diverter plans is also a consideration. Additionally, diverter plans would interfere with the practice when more than one vehicle responds to a call dispatching the equipment via parallel streets so that if an incident delays a vehicle on one street the other will still have unimpeded passage to the fire. Moreover, if the most direct route to a call becomes blocked the fire equipment usually diverts to a parallel street and continues its journey. However, if the parallel street has diverters which will not allow access to fire vehicles, this eliminates that option and could seriously extend the response time. Where diverters might confine the response routes to a single approach there is the distinct possibility of creation of a fire equipment jam impeding both the ability to get to the site of the fire and also effecting the efficiency of performance once on the site. Although fire fighting is the primary service provided by the fire department, another significant service involves resuscitation equipment utilized in accidents, heart cases and the like. It is extremely important to have quick response with this equipment because a matter of seconds can literally mean a life. For further discussion see Appendix D (Final Report).

BERKELEY
ALAMEDA COUNTY
CALIFORNIA



City of Berkeley
Designated Fire Routes

ENVIRONMENTAL IMPACT REPORT
FOR
BERKELEY NEIGHBORHOOD TRAFFIC
STUDY

5-4
MAP

CUMULATIVE AND LONG-TERM EFFECTS OF THE PROJECT

This EIR has concentrated on the cumulative effects of doing all of the separate traffic management devices and proposals as a unit, since it was viewed that the impact of individual diverters or even small groups of diverters might be insignificant even though the cumulative effect was significant. Other cumulative effects are also worthy of discussion.

If the diverters proposed are installed, other Berkeley neighborhoods may demand that diverters be installed. Thus, where traffic congestion on major streets may not be alarming as a result of these recommendations, the addition of even more traffic diversion might prove very harmful. Another consideration is that Berkeley's experiment may prompt neighboring cities to install traffic management devices. Unless traffic diversions were deliberately aimed at Berkeley or another specific area, there is no reason to project significant adverse effects from such other cities efforts. However, if major streets are congested significantly throughout the East Bay, there is bound to be efforts to build new freeways and the like. Such thinking, however, is so hypothetical as to be of very little value in considering the environmental impacts of the present project.

The major long term effect of the project is the fact that the installation of diverters binds the city government to continuous expenditures to maintain the traffic diverter structures. In addition there is bound to be pressure to replace wood and concrete diverters with permanent landscaped facilities. If this is done, the city will become involved in costly construction, planting, and maintenance programs.

GROWTH INDUCING IMPACT

It is virtually impossible to determine the overall growth inducing impact of the great variety of actions that make up this project. There are some guidelines to projecting growth inducing consequences. These are:

- 1) Improved accessibility generally leads to pressure for increased development. While decreased accessibility would have the opposite effect.
- 2) Increased traffic can result in deterioration of residential land uses along the impacted traffic route. Deterioration and lowered values of residential structures can lead to pressure for new, more intensive development. Residential protection through decreased traffic should have the opposite effect.

Thus, this project should have at least some growth inducing impact in some areas and some growth retardant impact in other areas. The net result is impossible to accurately calculate and would in all probability be insignificant.

AVOIDABLE AND UNAVOIDABLE IMPACTS AND MITIGATION MEASURES
PROPOSED TO MINIMIZE THE IMPACTS

Unavoidable Impacts

Theoretically there is only one impact that is unavoidable. This is the reduced accessibility of residential areas. It is impossible to discourage through traffic in residential areas without adversely affecting freedom of movement in these areas. Some of the problems associated with this lack of accessibility can, however, be mitigated (see below).

Impacts which may or may not be avoidable

The plan calls for shifting traffic from internal residential areas to major streets. Whether or not this unavoidable shift will result in increased traffic on the major streets depends on the total level of traffic in the city. The consultants believe that significant traffic level reduction can be made in the next few years. (see Appendix C). If this is true, then the increase of traffic on the major streets could be avoided. Similarly increased traffic in certain areas of the city and traffic congestion in certain commercial areas can only be avoided by an overall city traffic rollback.

Avoidable Impacts and Mitigation Measures

Avoidable impacts and possible mitigation measures are presented in Table 5-7.

TABLE 5-7

POSSIBLE MITIGATION MEASURES

Impact	Possible Mitigation Measure
Street & Intersection Congestion	1. Widening, signalization modification, parking prohibition, left-turn prohibition or regulation, and similar traffic engineering solutions. 2. Attempt to reduce total traffic by measures proposed in the Policy Analysis Report. (Appendix C)
Neighborhood Inaccessibility	For neighborhoods where diverters combined with existing no left-turn regulations mean extremely poor access, current no left-turn restrictions can be removed.
Truck Noise	Ban trucks from seriously impacted streets.
Diverter Obstruction of Emergency Vehicles	Design diverters to allow passage of emergency vehicles, as described in the Final Report (Appendix <u>D</u>)
Disruption of School Bus Routes	Design diverters to allow passage of school buses, as described in the Final Report (Appendix <u>D</u>)
Confusing Street Pattern	A remedy to this situation is for the City, possibly through the Chamber of Commerce, to distribute to all businesses making deliveries in Berkeley updated street address maps indicating positions of diverters. Another possibility is to not only sign diverted streets "NOT A THROUGH STREET" on the blocks immediately approaching the diverter, but at its intersection with a major or collector street an additional informational sign could be placed which might have a message indicating a diverter several blocks away and the address range which could be reached from that point.

IMPACT OF ALTERNATIVE #2
(Consultant's Recommendation Plus Tunnel Road Modification)*

TRAFFIC VOLUME CHANGES

For pertinent comments see Impact Analysis of Alternative #1. For projected traffic volume changes see Map 5-5.

IMPACT ON RESIDENTIAL AREAS**

This alternative will result in increases in major street traffic of 14% for Census Tract 34 (McGee-California-Derby Area) and of 11% for Census Tract 35 (Adeline-Shattuck-Derby Area). The increase in traffic in these two areas results primarily from the overall shift of traffic from east to west caused by the reduced traffic capacity of Tunnel Road. Large amounts of traffic will shift from the Tunnel corridor to the Grove corridor.

These two areas are ill-equipped to accept this traffic. In measuring existing traffic level, percentage of old people, children and immobile groups of people, these areas are among the areas of the city most vulnerable to the environmental disruptions of increased traffic. (See Chapter 4 statistics on residential area characteristics for documentation.)

The south campus area will also have a major increase in traffic. This already congested area will suffer traffic increases but will get no benefits from the neighborhood protection program.

IMPACT ON THE RESIDENTIAL ENVIRONMENT OF MAJOR STREETS

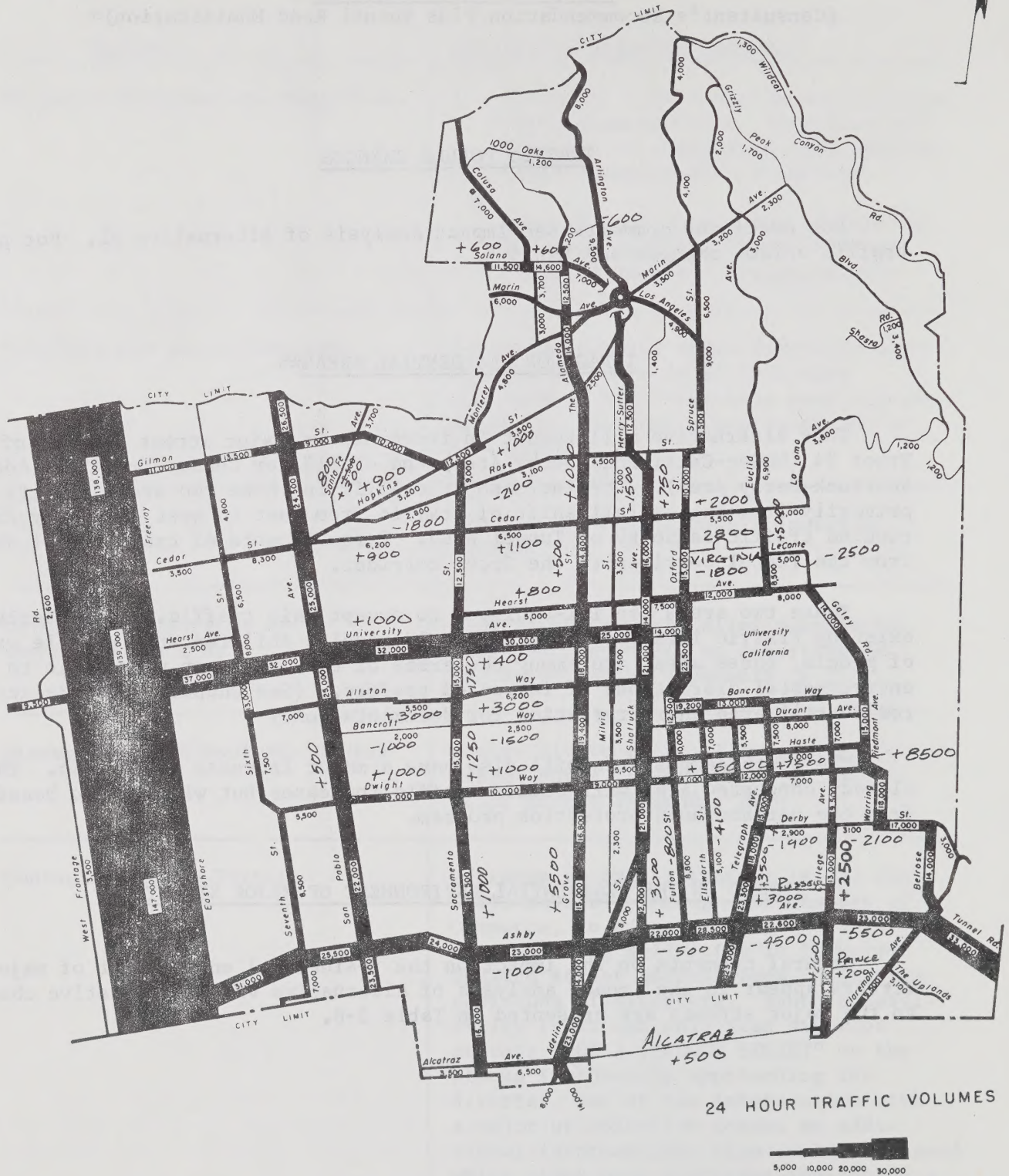
General comments on the impact on the residential environment of major streets appear in the impact analysis of Alternative #1. Quantitative changes to the major streets are presented in Table 5-8.

* Chapter Two - Project Description for details of Consultant's Recommendation

** For general comments see Alternative #1.

CITY OF BERKELEY, CALIFORNIA

TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS



ALTERNATIVE #2

PROJECTED TRAFFIC VOLUME CHANGES

ENVIRONMENTAL IMPACT REPORT
FOR
BERKELEY NEIGHBORHOOD TRAFFIC
STUDY

TABLE 5-8

IMPACT OF ALTERNATIVE #2 ON THE ENVIRONMENT OF MAJOR STREETS

Major Streets Having 30% or More Decrease in Traffic

Milvia (Dwight to Ashby)	87%
Ellsworth (Ashby to Bancroft)	80%
Milvia (Cedar to Rose)	75%
Derby (Telegraph to Warring)	67%
Rose (Hopkins to Grove)	66%
Virginia (Oxford to Euclid)	64%
Bancroft (Grove to San Pablo)	56%
Le Conte	50%
Russell (Telegraph to College)	40%
Tunnel Road	30%

Major Streets Having 10-29% Decrease in Traffic

Cedar (San Pablo to Grove)	28%
Ashby (College to Tunnel)	24%
Ashby (Telegraph to College)	20%
Fulton (Ashby to Dwight)	10%

Major Streets Having 30% or More Increase in Traffic

Haste (Telegraph to Piedmont)	67%
Euclid (Cedar to Hearst)	59%
Dwight (Telegraph to Piedmont)	57%
Allston (Grove to San Pablo)	52%
Haste (Shattuck to Telegraph)	42%
Grove (Ashby to Dwight)	41%
Claremont (South of Ashby)	41%
Santa Fe	38%
Cedar (Shattuck to Euclid)	36%
College (Derby to Dwight)	36%
Dwight (Shattuck to Telegraph)	31%

Major Streets Having 10-29% Increase in Traffic

Hopkins (San Pablo to The Alameda)	28%
Shattuck (Ashby to Adeline)	25%
College (Ashby to Derby)	27%
College (Ashby to Alcatraz)	19%
Telegraph (Ashby to Dwight)	19%
Shattuck (Ashby to Adeline)	17%
Hearst (Sacramento to Grove)	16%
Claremont-Belrose-Derby-Warring-Piedmont (Ashby to Haste)	12%
Dwight (Shattuck to San Pablo)	11%

NOISE IMPACTS

General comments on noise impact appear in the impact analyses of Alternative #1. The noise impact will be virtually the same as in Alternative #1 and the streets and noise changes shown in Alternative #1's Table 5-4 apply to this alternative.

TRAFFIC CONGESTION

General comments on traffic congestion appear in the impact analysis of Alternative #1. As can be seen by Table 5-9, seven critical roadway links will be adversely impacted by this alternative. However only one roadway, Euclid southbound at Hearst, will become highly congested as a result of this alternative. It should be noted, however, that while reducing the capacity of Tunnel Road, relieves pressure on certain Berkeley intersections, diverted traffic will undoubtedly adversely affect portions of north Oakland.

IMPACT ON COMMERCIAL AREAS

The impact on the Euclid Avenue stores will be the same as described for Alternative #1.

The Elmwood area, as in Alternative #1 will be significantly impacted but in a less clear way. College Avenue on which most stores front will experience a 27% increase in traffic. However Ashby which is presently a disruptive influence will experience a 24% reduction in traffic.

The Sather Gate area will be affected at the south end in the same manner as in Alternative #1 where a 60% increase of traffic on Dwight and Haste will further disrupt the pedestrian movement up and down the avenue.

OTHER IMPACT CONSIDERATIONS

See Impact Analysis of Alternative #1 for pertinent comments on the following concerns:

1. Impact on Environmental Systems
(irreversible changes, impact on the natural environment, visual impacts and air quality impacts.)
2. Neighborhood Accessibility
3. Impact on Service and Emergency Vehicles
4. Cumulative and Long-Term Effects of the Project
5. Growth Inducing Impact
6. Avoidable and Unavoidable Impacts and Mitigation Measures Proposed to Minimize the Impacts

TABLE 5-9

TRAFFIC CONGESTION CAUSED BY ALTERNATIVE #2

Highly Congested Roadways to Which a Substantial Amount of Additional Traffic Will be Added

Euclid southbound at Hearst (AM)

Roadways Which Will Become Highly Congested due to the Expected Increase in Traffic

Euclid southbound at Hearst (PM)

Roadways Where Traffic Increases Will Result in a Level of Traffic Service Approaching a High Degree of Congestion

Claremont northbound at Ashby (PM)

Claremont southbound at Ashby (AM & PM)

College northbound at Ashby (with present parking removed) (AM & PM)*

College southbound at Ashby (with present parking removed) (PM)*

Telegraph southbound at Ashby (PM)

Grove southbound at Ashby (AM)

*Note: The congestion analysis was performed simply for the intersection. Actually, the parking and unparking of cars along College in this area creates a very high degree of congestion.

IMPACT OF ALTERNATIVE #3

(Consultant's Recommendation* but with the Fulton-Ellsworth Corridor given no treatment.)

TRAFFIC VOLUME CHANGES

For pertinent comments see Impact Analysis of Alternative #1. For projected traffic volume changes see Map 5-6.

IMPACT ON RESIDENTIAL AREAS**

The only area that will experience significant major street traffic increases under this alternative would be Census Tract 37 (the Piedmont-Russell-Derby area) which would have an increase of 11%. This increase is directly attributable to the diversion of Russell, Derby and Piedmont Avenues. Thus, the internal neighborhoods in this area would benefit from the increases on the major streets.

IMPACT ON THE RESIDENTIAL ENVIRONMENT OF MAJOR STREETS

General comments on the impact on the residential environment of major streets appear in the impact analysis of Alternative #1. Quantitative changes to the major streets are presented in Table 5-10.

NOISE IMPACTS

General comments on noise impacts appear in the impact analyses of Alternative #1. The noise impact is depicted in Table 5-11.

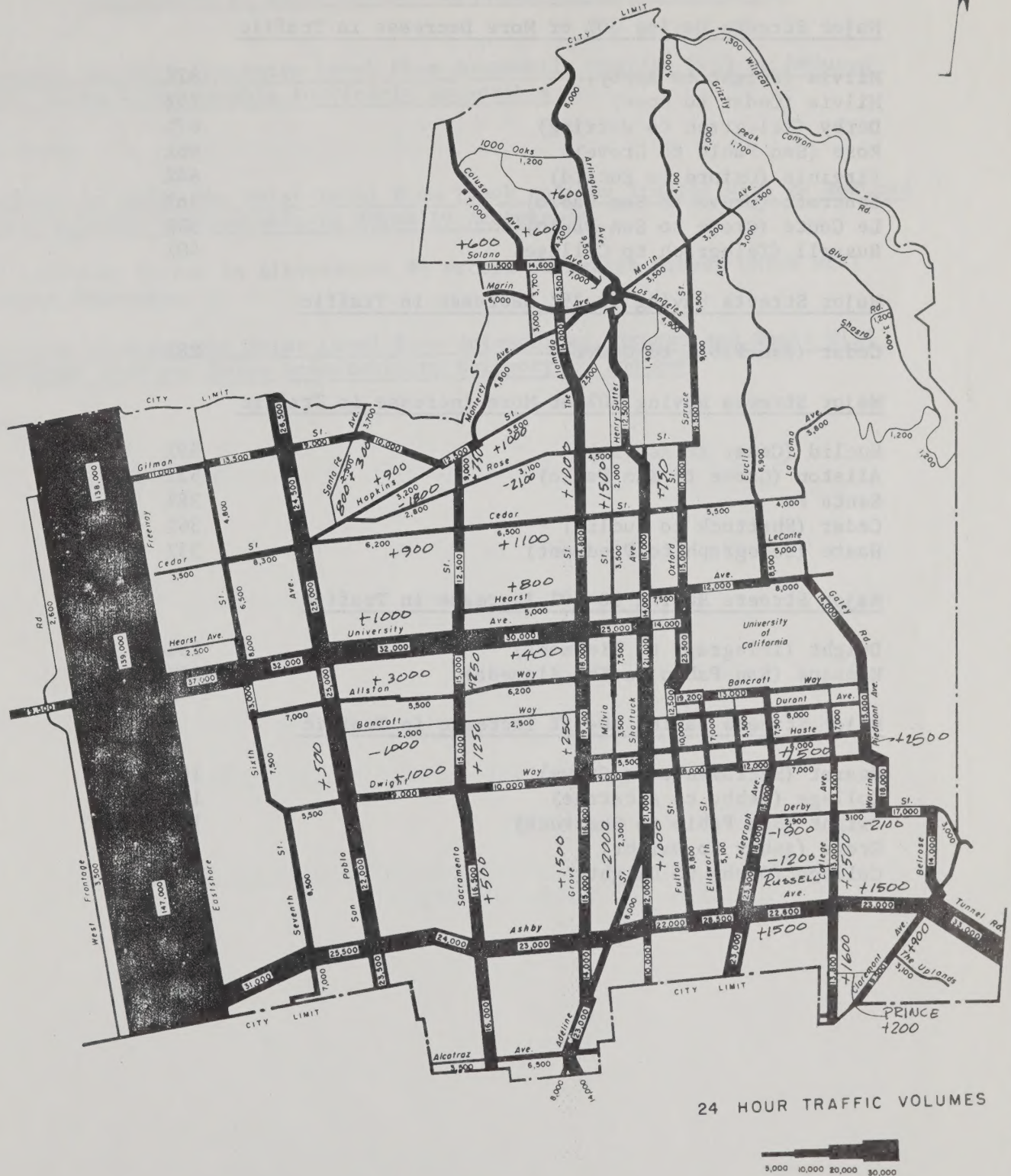
* See Chapter Two - Project Description for details of Consultants Recommendation

** For general comments see Alternative #1.

CITY OF BERKELEY, CALIFORNIA

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ALTERNATIVE # 3

PROJECTED TRAFFIC VOLUME CHANGES

ENVIRONMENTAL IMPACT REPORT
FOR
BERKELEY NEIGHBORHOOD TRAFFIC
STUDY

MAP 5-6

TABLE 5-10

IMPACT OF ALTERNATIVE #3 ON THE ENVIRONMENT OF MAJOR STREETS

Major Streets Having 30% or More Decrease in Traffic

Milvia (Dwight to Ashby)	87%
Milvia (Cedar to Rose)	75%
Derby (Telegraph to Warring)	67%
Rose (San Pablo to Grove)	66%
Virginia (Oxford to Euclid)	64%
Bancroft (Grove to San Pablo)	56%
Le Conte (Grove to San Pablo)	50%
Russell (Telegraph to College)	40%

Major Streets Having 10-29% Decrease in Traffic

Cedar (San Pablo to Grove)	28%
----------------------------	-----

Major Streets Having 30% or More Increase in Traffic

Euclid (Cedar to Hearst)	59%
Allston (Grove to San Pablo)	52%
Santa Fe	38%
Cedar (Shattuck to Euclid)	36%
Haste (Telegraph to Piedmont)	33%

Major Streets Having 20-29% Increase in Traffic

Dwight (Telegraph to Piedmont)	29%
Hopkins (San Pablo to The Alameda)	28%

Major Streets Having 10-19% Increase in Traffic

Hearst (Sacramento to Grove)	16%
College (Ashby to Alcatraz)	12%
Dwight (San Pablo to Shattuck)	11%
Grove (Ashby to Dwight)	10%
College (Derby to Dwight)	10%

TABLE 5-11

ALTERNATIVE #3 NOISE IMPACTS ON MAJOR RESIDENTIAL STREETS

Streets on Which the Noise Level From Automobile Traffic Will be Reduced
From Normally Acceptable to Clearly Acceptable

Le Conte

Streets on Which the Noise Level From Truck and Bus Traffic Will be Reduced
From Normally Unacceptable to Normally Acceptable

All streets listed in Alternative #1 except Ellsworth Street which will remain unchanged.

Streets on Which the Noise Level From Automobiles, Trucks and Buses Will
Increase From one Noise Acceptability Category to Another

None

TRAFFIC CONGESTION

General comments on traffic congestion appear in the impact analysis of Alternative #1. As can be seen by Table 5-12 five critical roadway links will be adversely affected by this alternative.

Two roadways, Ashby westbound at College and Euclid southbound at Hearst, will become or will be made more congested. Ashby will actually have very little traffic added but at this location there already is high congestion.

IMPACT ON COMMERCIAL AREAS

The impact on the Euclid avenue stores will be the same as in Alternative #1. No other commercial areas will be significantly impacted.

OTHER IMPACT CONSIDERATIONS

See Impact Analysis of Alternative #1 for pertinent comments on the following concerns:

1. Impact on Environmental Systems
(irreversible changes, impact on the natural environment, visual impacts and air quality impacts.)
2. Neighborhood Accessibility
3. Impact on Service and Emergency Vehicles
4. Cumulative and Long-Term Effects of the Project
5. Growth Inducing Impact
6. Avoidable and Unavoidable Impacts and Mitigation Measures Proposed to Minimize the Impacts

TABLE 5-12

TRAFFIC CONGESTION CAUSED BY ALTERNATIVE #3

Highly Congested Roadways to Which a Substantial Amount of Additional Traffic Will be Added

Ashby westbound at College (AM)
Euclid southbound at Hearst (AM)

Roadways Which Will Become Highly Congested due to the Expected Increase in Traffic

Euclid southbound at Ashby (PM)

Roadways Where Traffic Increases Will Result in a Level of Traffic Service Approaching a High Degree of Congestion

Ashby eastbound at Claremont (PM)
College northbound at Ashby (with present parking removed) (AM & PM)*
College southbound at Ashby (with present parking removed) (PM)*

*Note: The congestion analysis was performed simply for the intersection. Actually, the parking and unparking of cars along College in this area creates a very high degree of congestion.

IMPACT OF ALTERNATIVE #4

(Consultant's Recommendation* Plus Tunnel Road Modification
but with the Fulton-Ellsworth Corridor Given no Treatment)

TRAFFIC VOLUME CHANGES

For pertinent comments see Impact Analysis of Alternative #1. For projected traffic volume changes see Map 5-7.

IMPACT ON RESIDENTIAL AREAS**

This alternative will result in significant increases in traffic in Census Tract 34 (McGee-California-Derby area) and Census Tract 37 (Piedmont-Russell-Derby area). Both will experience increases of about 12%.

The increase of traffic on major streets in the Piedmont-Russell-Derby area is directly attributable to the diversion of Russell-Derby and Piedmont Avenues. Thus the internal neighborhoods in this area benefit from the increases on the major streets. (The effects on the major streets of this increased traffic are assessed in the following section.)

In the case of the McGee-California-Derby area, the increase in traffic on major streets is directly attributable to the reduced capacity of Tunnel Road. Census Tract 34 is ill-equipped to accept this traffic. In measuring existing traffic level percentage of children and immobile groups of people and the blighting influences of traffic, this area is one of the areas of the city most vulnerable to the environmental disruptions of increased traffic. (See Chapter 4 statistics on residential area characteristics for documentation.)

IMPACT ON THE RESIDENTIAL ENVIRONMENT OF MAJOR STREETS

General comments on the impact on the residential environment of major streets appear in the impact analysis of Alternative #1. Quantitative changes to the major streets are presented in Table 5-13.

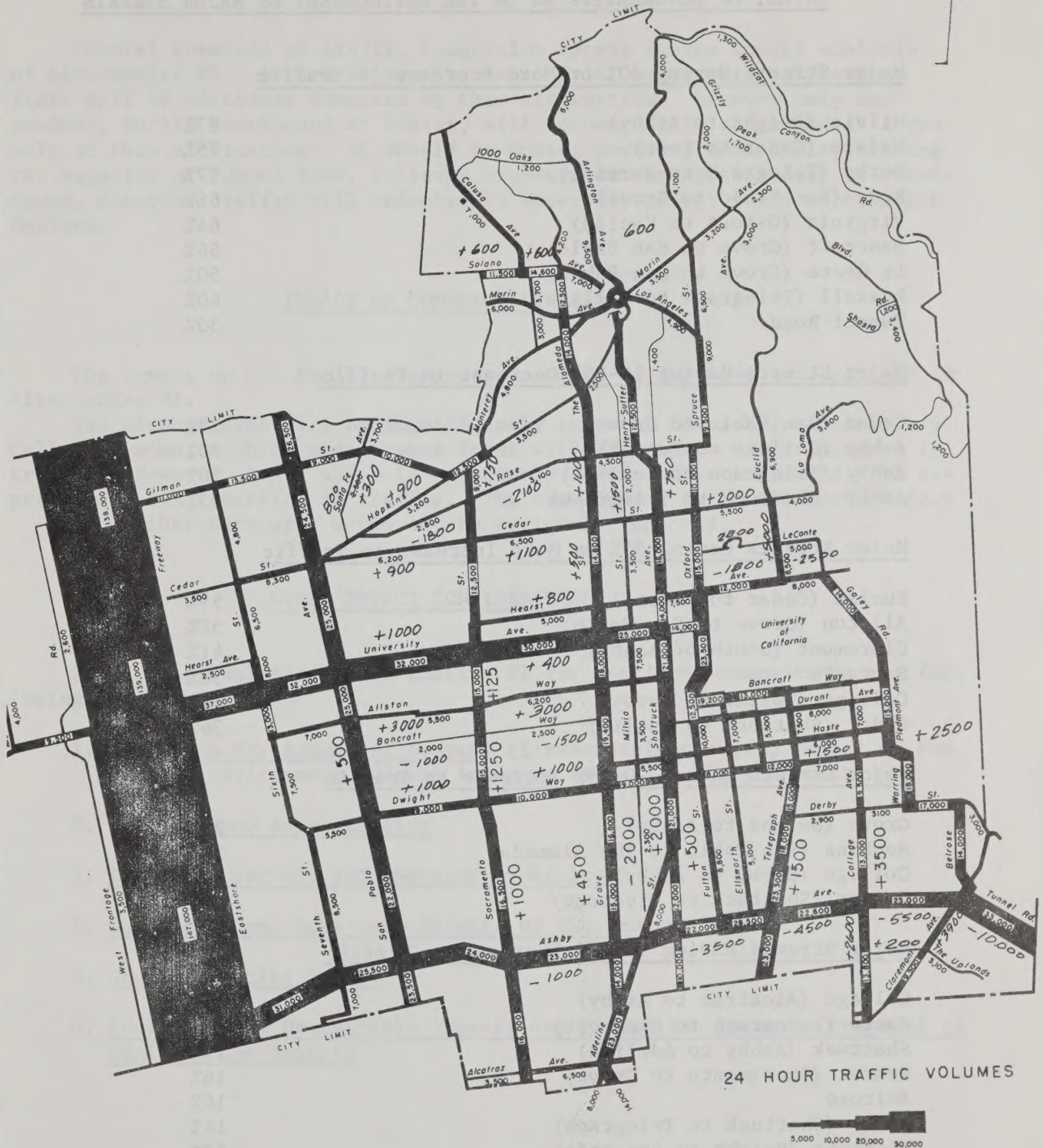
NOISE IMPACTS

General comments on noise impact appear in the impact analysis of Alternative #1. The noise impact will be virtually the same as in Alternative #3 and the streets and noise changes shown in Alternative #3's Table 5-11 apply to this alternative.

* See Chapter Two-Project Description for details of Consultant's recommendation.

** For general comments see Alternative # 1.

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ALTERNATIVE # 4
PROJECTED TRAFFIC VOLUME CHANGES

ENVIRONMENTAL IMPACT REPORT
FOR
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TABLE 5-13

IMPACT OF ALTERNATIVE #4 ON THE ENVIRONMENT OF MAJOR STREETS

Major Streets Having 30% or More Decrease in Traffic

Milvia (Dwight to Ashby)	87%
Milvia (Cedar to Rose)	75%
Derby (Telegraph to Warring)	67%
Rose (San Pablo to Grove)	66%
Virginia (Oxford to Euclid)	64%
Bancroft (Grove to San Pablo)	56%
Le Conte (Grove to San Pablo)	50%
Russell (Telegraph to College)	40%
Tunnel Road	30%

Major Streets Having 10-29% Decrease in Traffic

Cedar (San Pablo to Grove)	28%
Ashby (College to Tunnel)	20%
Ashby (Telegraph to College)	20%
Ashby (Shattuck to Telegraph)	13%

Major Streets Having 30% or More Increase in Traffic

Euclid (Cedar to Hearst)	59%
Allston (Grove to San Pablo)	52%
Claremont (South of Ashby)	41%
Santa Fe	38%
College (Dwight to Derby)	37%
Cedar (Shattuck to Euclid)	36%

Major Streets Having 20-29% Increase in Traffic

Grove (Dwight to Ashby)	28%
Hopkins (San Pablo to The Alameda)	28%
College (Derby to Ashby)	27%
Dwight (Shattuck to Piedmont)	21%

Major Streets Having 10-19% Increase in Traffic

College (Alcatraz to Ashby)	19%
Haste (Telegraph to Piedmont)	17%
Shattuck (Ashby to Adeline)	17%
Hearst (Sacramento to Grove)	16%
Belrose	14%
Ashby (Shattuck to Telegraph)	14%
Piedmont (Dwight to Bancroft)	13%
Derby (Warring to Belrose)	12%
Santa Fe	12%
Warring (Derby to Dwight)	11%
Dwight (San Pablo to Shattuck)	11%
Grove (Ashby to Dwight)	10%

TRAFFIC CONGESTION

General comments on traffic congestion appear in the impact analysis of Alternative #1. As can be seen by Table 5-14, seven critical roadway links will be adversely impacted by this alternative. However only one roadway, Euclid Southbound at Hearst, will become highly congested as a result of this alternative. It should be noted, however, that while reducing the capacity of Tunnel Road, relieves pressure on certain Berkeley intersections, diverted traffic will undoubtedly adversely affect portions of north Oakland.

IMPACT ON COMMERCIAL AREAS

The impact on the Euclid Avenue stores will be the same as described in Alternative #1.

The Elmwood area will be significantly impacted but not in a clear way. College Avenue on which most stores front will experience a 27% increase in traffic. However, Ashby which is presently a disruptive influence will experience a 24% reduction in traffic. (The same impact as in Alternative #2.)

The Sather Gate area would not be seriously impacted.

OTHER IMPACT CONSIDERATIONS

See Impact Analysis of Alternative #1 for pertinent comments on the following concerns:

1. Impact on Environmental Systems (Irreversible changes, impact on the natural environment, visual impacts, and air quality impacts)
2. Neighborhood Accessibility
3. Impact on Service and Emergency Vehicles
4. Cumulative and Long-term Effects of the Project
5. Growth Inducing Impact
6. Avoidable and Unavoidable Impacts and Mitigation Measures Proposed to Minimize the Impacts

TABLE 5-14

TRAFFIC CONGESTION CAUSED BY ALTERNATIVE #4

Highly Congested Roadways to Which a Substantial Amount of Additional Traffic Will be Added

Euclid southbound at Hearst (AM)

Roadways Which Will Become Highly Congested due to the Expected Increase in Traffic

Euclid southbound at Hearst (PM)

Roadways Where Traffic Increases Will Result in a Level of Traffic Service Approaching a High Degree of Congestion

Claremont northbound at Ashby (PM)

College northbound at Ashby (with present parking removed) (AM & PM) *

College southbound at Ashby (with present parking removed) (PM) *

*Note: The congestion analysis was performed simply for the intersection. Actually, the parking and unparking of cars along College in this area creates a very high degree of congestion.

IMPACT OF ALTERNATIVE #5

(Consultant's recommendation but with the traffic of both Fulton and Ellsworth completely diverted to other streets.)*

TRAFFIC VOLUME CHANGES

For pertinent comments see impact analysis of Alternative #1. For projected traffic volume changes, see Map 5-8.

IMPACT ON RESIDENTIAL AREAS**

This alternative will result in significant increases in traffic in Census Tracts 26-27 (immediate South Campus area) and Census Tract 34 (McGee-California-Derby area).

The McGee-California-Derby area will experience an approximately 12% increase in traffic on major streets. For the consequences of this increase, see comments for Alternative #4.

The South Campus area will experience a 5-20% increase in traffic (virtually all streets are major streets). For the consequences of this increase, see comments for Alternative #1.

IMPACT ON THE RESIDENTIAL ENVIRONMENT OF MAJOR STREETS

General comments on the impact on the residential environment of major streets appear in the impact analysis of Alternative #1. Quantitative changes to the major streets are presented in Table 5-15.

NOISE IMPACTS

General comments on noise impact appear in the impact analysis of Alternative #1. The noise impact will be the same as Alternative #1 except that under this alternative, Fulton Street noise would be reduced from normally unacceptable to normally acceptable. See Alternative #1, Table 5-4 for other noise level changes.

TRAFFIC CONGESTION

General comments on traffic congestion appear in the impact analysis of Alternative #1. As can be seen by Table 5-16, five critical roadway links will be adversely impacted by this alternative.

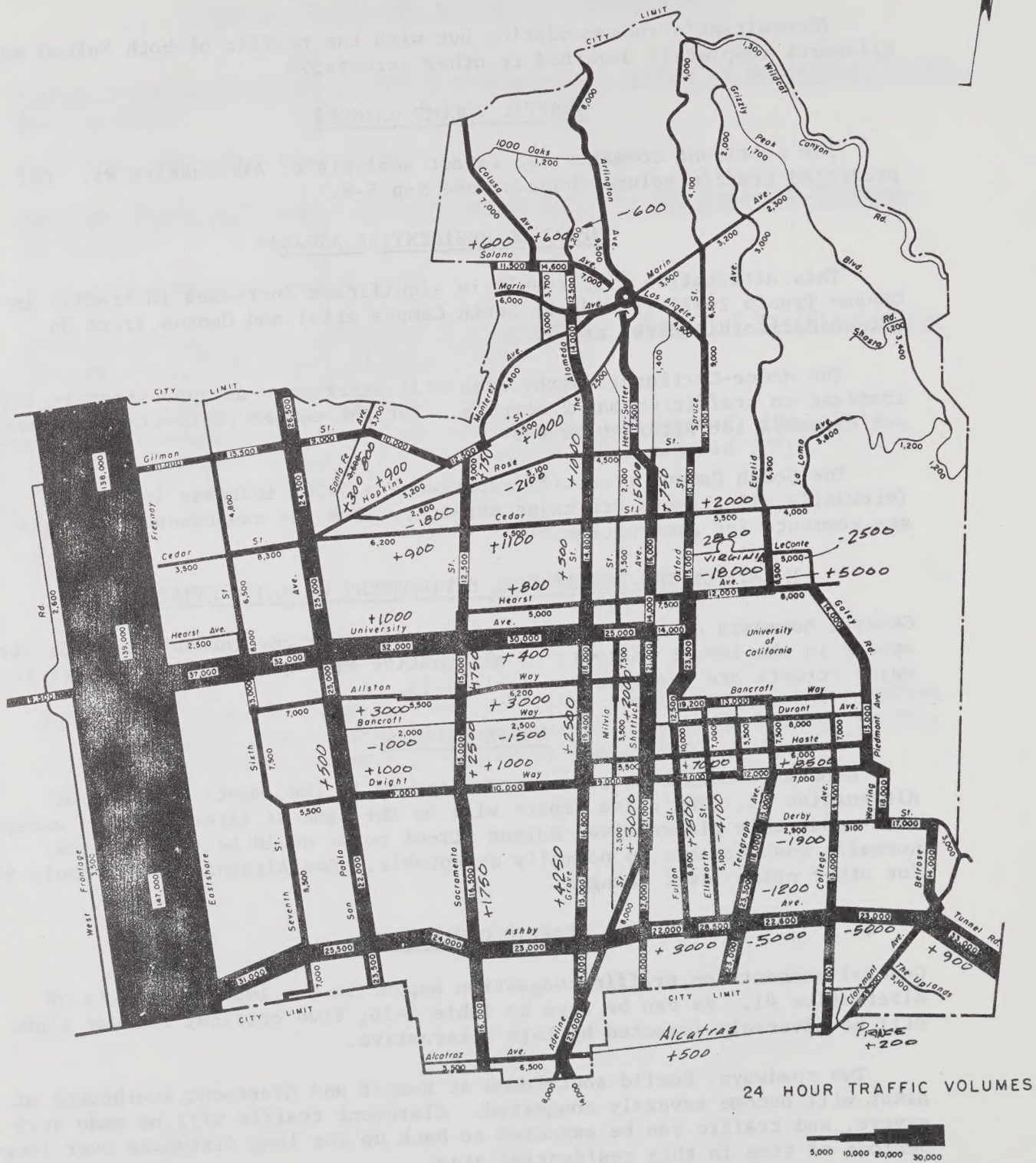
Two roadways, Euclid southbound at Hearst and Claremont southbound at Ashby, will become severely congested. Claremont traffic will be made very severe, and traffic can be expected to back up for long distances over long periods of time in this residential area.

*See Chapter Two - Project Description for details of consultant's recommendation.

**For general comments, see Alternative #1.

CITY OF BERKELEY, CALIFORNIA

TRAFFIC ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS



ALTERNATIVE #5

PROJECTED TRAFFIC VOLUME CHANGES

ENVIRONMENTAL IMPACT REPORT
FOR
BERKELEY NEIGHBORHOOD TRAFFIC
STUDY

TABLE 5-15

IMPACT OF ALTERNATIVE #5 ON THE ENVIRONMENT OF MAJOR STREETS

Major Streets Having 30% or More Decrease in Traffic

Milvia (Dwight to Ashby)	87%
Fulton (Dwight to Ashby)	87%
Ellsworth (Dwight to Ashby)	80%
Milvia (Cedar to Rose)	75%
Derby (Telegraph to Warring)	67%
Rose (San Pablo to Grove)	66%
Virginia (Oxford to Euclid)	64%
Bancroft (Grove to San Pablo)	56%
Le Conte	50%
Russell (Telegraph to College)	40%

Major Streets Having 10-29% Decrease in Traffic

Cedar (San Pablo to Grove)	28%
Ashby (College to Tunnel)	22%

Major Streets Having 30% or More Increase in Traffic

Haste (Telegraph to Piedmont)	71%
Dwight (Telegraph to Piedmont)	61%
Euclid (Cedar to Hearst)	59%
Haste (Shattuck to Telegraph)	58%
Allston (Grove to San Pablo)	52%
Dwight (Shattuck to Telegraph)	44%
Claremont-Belrose-Derby-Warring-Piedmont (Ashby to Haste)	38%
Santa Fe	38%
Cedar (Shattuck to Euclid)	36%

Major Streets Having 20-29% Increase in Traffic

Hopkins (San Pablo to The Alameda)	28%
Grove (Ashby to Dwight)	27%
College (Derby to Dwight)	26%
Shattuck (Ashby to Adeline)	25%

Major Streets Having 10-19% Increase in Traffic

College (Ashby to Derby)	19%
Sacramento (Dwight to University)	17%
Hearst (Sacramento to Grove)	16%
Shattuck (Adeline to Dwight)	14%
Grove (Dwight to University)	13%
College (Alcatraz to Ashby)	12%
Ashby (Telegraph to Shattuck)	12%
Santa Fe	12%
Dwight (San Pablo to Shattuck)	11%
Sacramento (Ashby to Dwight)	11%
Telegraph (Ashby to Dwight)	11%
Shattuck (Dwight to University)	10%
Claremont	10%

TABLE 5-16

TRAFFIC CONGESTION CAUSED BY ALTERNATIVE #5

Highly Congested Roadways to Which a Substantial Amount of Additional Traffic Will be Added

Euclid southbound at Hearst (AM)

Roadways Which Will Become Highly Congested due to the Expected Increase in Traffic

Euclid southbound at Hearst (PM)

Claremont southbound at Ashby (AM & PM)

Roadways Where Traffic Increases Will Result in a Level of Traffic Service Approaching a High Degree of Congestion

College northbound at Ashby (with parking removed) (AM)*

College southbound at Ashby (with parking removed) (PM)*

Telegraph southbound at Ashby (PM)

*Note: The congestion analysis was performed simply for the intersection. Actually, the parking and unparking of cars along College in this area creates a very high degree of congestion.

IMPACT ON COMMERCIAL AREAS

The impact on the Euclid Avenue stores will be the same as described for Alternative #1.

The Elmwood area will be significantly impacted but not in a clear way. College Avenue on which most stores front will experience a 19% increase in traffic. However, Ashby which is presently a disruptive influence will experience a 22% decrease of traffic.

The Sather Gate area will experience a 60% increase in traffic on Haste and Dwight which will undoubtedly serve as a disruption to pedestrian usage of Telegraph Avenue.

OTHER IMPACT CONSIDERATIONS

See impact analysis of Alternative #1 for pertinent comments on the following concerns:

1. Impact on Environmental Systems

(Irreversible changes, impact on the natural environment, visual impacts and air quality impacts.)

2. Neighborhood Accessibility

3. Impact on Service and Emergency Vehicles

4. Cumulative and Long-Term Effects of the Project

5. Growth Inducing Impact

6. Avoidable and Unavoidable Impacts and Mitigation Measures Proposed to Minimize the Impacts

IMPACT OF ALTERNATIVE #6

(Consultant's recommendation* but lacking any treatment for the Northgate and Flatlands areas and for the portion of the Le Conte area which lies north of Ashby Avenue.)

TRAFFIC VOLUME CHANGES

For pertinent comments, see impact analysis of Alternative #1. For projected traffic volume changes, see Map 5-9.

IMPACT ON RESIDENTIAL AREAS**

The only area that will experience significant traffic increases under this alternative would be Census Tract 37 (the Piedmont-Russell-Derby area) which would have an increase of 11%. This increase is directly attributable to the diversion of Russell, Derby and Piedmont. Thus, the internal neighborhoods in this area would benefit from the increases on the major streets. (The effects on the major streets of this increased traffic are assessed in the following section.)

IMPACT ON THE RESIDENTIAL ENVIRONMENT OF MAJOR STREETS

General comments on the impact on the residential environment of major streets appear in the impact analysis of Alternative #1. Quantitative changes to the major streets are presented in Table 5-17.

NOISE IMPACTS

General comments on noise impact appear in the impact analysis of Alternative #1. There will be significantly less noise reductions for this alternative than for the others. See Table 5-18 for a listing of the impacts.

TRAFFIC CONGESTION

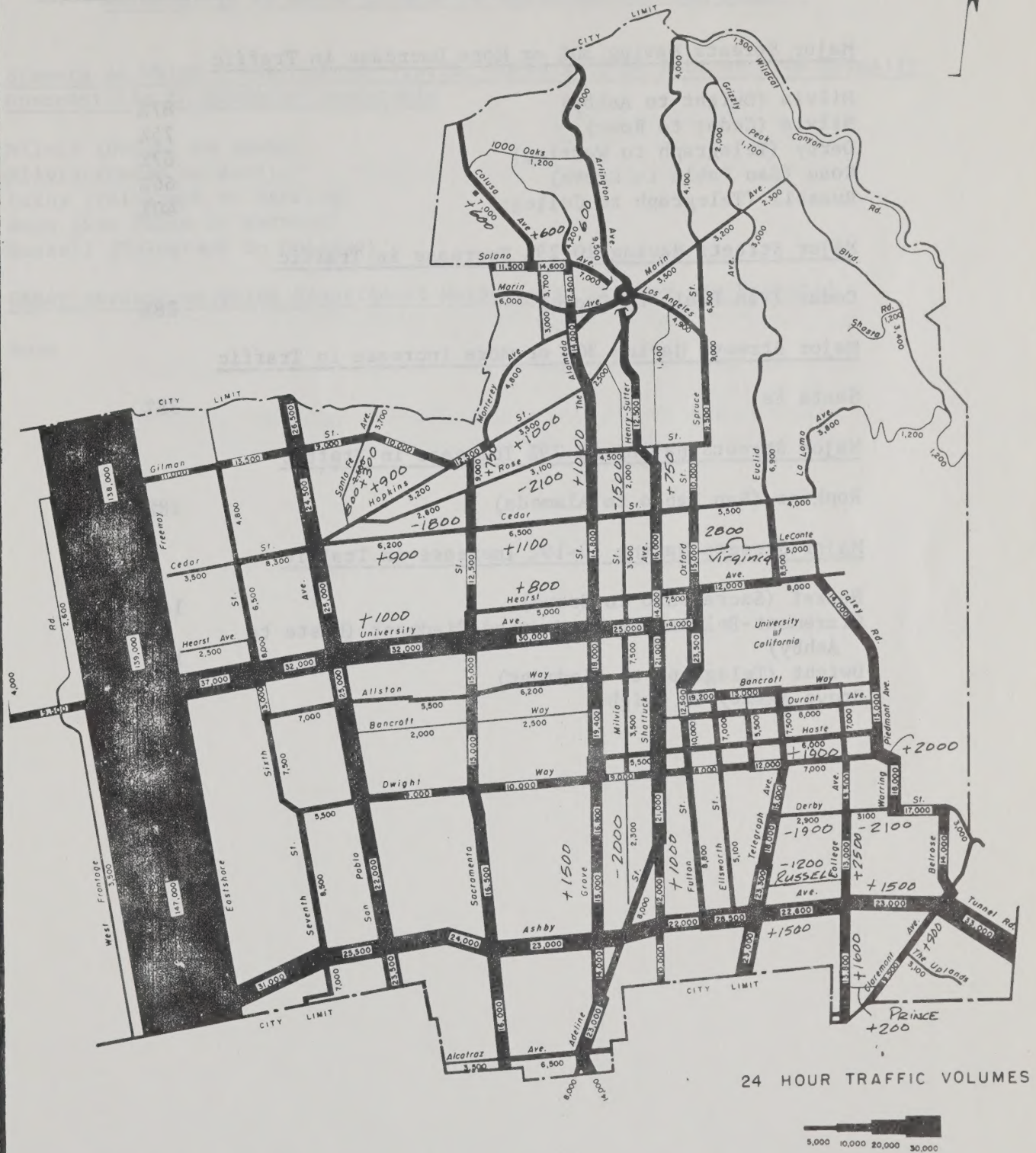
General comments on traffic congestion appear in the impact analysis of Alternative #1. As can be seen by Table 5-19, five critical roadway links will be adversely affected by this alternative. However, no roadways are made highly congested, and only one presently congested roadway, Ashby westbound at College, is made worse. Ashby will actually have very little traffic added, but at this location there already is high congestion.

IMPACT ON COMMERCIAL AREAS

There will not be a significant impact to any commercial area under this alternative.

*See Chapter Two - Project Description for details of consultant's recommendation.

**For general comments, see Alternative #1.



ALTERNATIVE #6

PROJECTED TRAFFIC VOLUME CHANGES

ENVIRONMENTAL IMPACT REPORT FOR BERKELEY NEIGHBORHOOD TRAFFIC STUDY

MAP 5-9

TABLE 5-17

IMPACT OF ALTERNATIVE #6 ON THE ENVIRONMENT OF MAJOR STREETS

Major Streets Having 30% or More Decrease in Traffic

Milvia (Dwight to Ashby)	87%
Milvia (Cedar to Rose)	75%
Derby (Telegraph to Warring)	67%
Rose (San Pablo to Grove)	66%
Russell (Telegraph to College)	40%

Major Streets Having 10-29% Decrease in Traffic

Cedar (San Pablo to Grove)	28%
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Major Streets Having 30% or More Increase in Traffic

Santa Fe	38%
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Major Streets Having 20-29% Increase in Traffic

Hopkins (San Pablo to Alameda)	28%
--------------------------------	-----

Major Streets Having 10-19% Increase in Traffic

Hearst (Sacramento to Grove)	16%
Claremont-Belrose-Derby-Warring-Piedmont (Haste to Ashby)	12%
Dwight (Telegraph to Piedmont)	11%
Grove (Ashby to Dwight)	10%

TABLE 5-18

ALTERNATIVE #6 NOISE IMPACTS ON MAJOR RESIDENTIAL STREETS

Streets on Which Truck and Bus Traffic Noise Will be Reduced From Normally Unacceptable to Normally Acceptable

Milvia (Dwight to Ashby)
Milvia (Cedar to Rose)
Derby (Telegraph to Warring)
Rose (San Pablo to Warring)
Russell (Telegraph to College)

Other Streets on Which Significant Noise Level Changes are Expected

None

TABLE 5-19

TRAFFIC CONGESTION CAUSED BY ALTERNATIVE #6

Highly Congested Roadways to Which Additional Traffic Will be Added

Ashby westbound at College (AM)

Roadways Which Will Become Highly Congested due to the Expected Increase in Traffic

None

Roadways Where Traffic Increases Will Contribute to a Level of Traffic Service Approaching a High Degree of Congestion

Ashby eastbound at Claremont (PM)

Ashby eastbound at College (PM)

College northbound (with parking removed at Ashby) (AM)

College southbound (with parking removed at Ashby) (PM)

OTHER IMPACT CONSIDERATIONS

See impact analysis of Alternative #1 for pertinent comments on the following concerns:

1. Impact on Environmental Systems

(Irreversible changes, impact on the natural environment, visual impacts and air quality impacts.)

2. Neighborhood Accessibility

3. Impact on Service and Emergency Vehicles

4. Cumulative and Long-Term Effects of the Project

5. Growth Inducing Impact

6. Avoidable and Unavoidable Impacts and Mitigation Measures Proposed to Minimize the Impacts

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